



**INDIAN AGRICULTURAL
RESEARCH INSTITUTE, NEW DELHI**

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INTERNATIONAL INSTITUTE OF AGRICULTURE
BUREAU OF ECONOMIC AND SOCIAL INTELLIGENCE

INTERNATIONAL REVIEW
OF
AGRICULTURAL ECONOMICS

(MONTHLY BULLETIN OF ECONOMIC
AND SOCIAL INTELLIGENCE)

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1922



THE INTERNATIONAL INSTITUTE OF AGRICULTURE

ORIGIN OF THE INSTITUTE AND SUMMARY OF THE INTERNATIONAL TREATY

The International Institute of Agriculture was established under the International Treaty of 7 June 1905, which was ratified by forty governments. Nineteen other governments have since adhered to the Institute.

It is a Government institution in which each country is represented by delegates. The Institute is composed of a General Assembly and a Permanent Committee.

The Institute, always confining its attention to the international aspect of the various questions concerned, shall :

(a) collect, study and publish as promptly as possible, statistical, technical, or economic information concerning farming, vegetable and animal products, trade in agricultural produce, and the prices prevailing in the various markets ;

(b) communicate the above information as soon as possible to those interested ;

(c) indicate the wages paid for farm work ;

(d) record new diseases of plants which may appear in any part of the world, showing the regions infected, the progress of the diseases, and if possible, any effective remedies ;

(e) study questions concerning agricultural co-operation, insurance and credit from every point of view ; collect and publish information which might prove of value in the various countries for the organization of agricultural co-operation, insurance and credit ;

(f) submit for the approval of the various governments, if necessary, measures for the protection of the common interests of farmers and for the improvement of their condition, utilizing for this purpose all available sources of information, such as resolutions passed by international or other agricultural congresses and societies, or by scientific and learned bodies, etc .

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PRINCIPAL WEIGHTS, MEASURES AND MONEY OF THE VARIOUS COUNTRIES AND THEIR BRITISH EQUIVALENTS

1 Cadastral arpent (Hungary)	=	1 42201	acres
1 Centimetre	=	0.393715	inches
1 Cho (60 ken) (Japan)	=	119.30327	yards
1 Crown 100 heller (Austria-Hungary)	=	10 d.	at par
1 Crown (100 ore) (Denmark, Norway, Sweden)	=	15.1 ¹ / ₈ d.	at par
1 Deciatine (2 tchetwert, Russia)	=	2.69566	acres
1 Dinar, gold (100 para) (Serbia)	=	933 ¹ / ₆₄ d.	at par
1 Dollar, gold (\$) (100 cents) (United States)	=	45.5 ⁵ / ₁₆ d.	at par
1 Drachm, gold (100 lepta) (Greece)	=	933 ¹ / ₆₄ d.	at par
1 Egyptian Kantar	=	99 0498	lbs.
1 Feddan Masri (24 Kirat Kamel) (Egypt)	=	1.03805	acres
1 Florin, gold, or Gulden (100 cents) (Netherlands)	=	15.753 ⁵³ / ₆₄ d.	at par
1 Franc (100 centimes) (France)	=	933 ¹ / ₆₄ d.	at par
1 Gramme	=	0.03527	oz.
1 Hectare	=	2.47109	acres
1 Kilogramme	=	2.2	lbs.
1 Kilometre	=	1093.613	yards
1 Kokou (10 To) (Japan)	=	1.58726	quarts
1 Lei, gold (100 bani) (Rumania)	=	983 ¹ / ₆₄ d.	at par
1 Leu (100 stotinki) (Bulgaria)	=	933 ¹ / ₆₄ d.	at par
1 Lira (100 centesimi) (Italy)	=	933 ¹ / ₆₄ d.	at par
Litre	=	0.21998	gallons
	=	0.0275	bushels
Mark (100 Pfennige) (Germany)	=	11 ³ / ₄ d.	at par
Mark (100 penni) (Finland)	=	933 ¹ / ₆₄ d.	at par
1 Metre	=	3.28084	feet
1 Milreis, gold (Brazil)	=	28 ²⁶¹ / ₆₄ d.	at par
1 Milreis, gold (Portugal)	=	45.519 ¹ / ₆₄ d.	at par
1 Peseta, gold (100 céntimos) (Spain)	=	933 ¹ / ₆₄ d.	at par
1 Peso, gold (100 centavos) (Argentina)	=	38.1137 ¹ / ₆₄ d.	at par
1 Peso, paper (Argentina)	=	18.813 ¹ / ₁₆ d.	at par
1 Pound, Turkish, gold (100 piastre) (Ottoman Empire)	=	188.015 ¹ / ₆₄ d.	at par
1 Pund (Sweden)	=	0.93712	lbs.
1 Quintal	=	1.96843	cwts.
1 Rouble, gold (100 kopeks) (Russia)	=	28.1 ³ / ₈ d.	at par
1 Rupee (16 annas) (British India)	=	¹ / ₁₀	of £1 (gold)
1 Talari (20 piastre) (Egypt)	=	48.1 ¹ / ₃ d.	at par
1 Verst (Russia)	=	1166.64479	yards
1 Yen, gold 2 fun or 100 sen (Japan)	=	28.037 ¹ / ₆₄ d.	at par
1 Zentner (Germany)	=	110.23171	lbs.

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Co-operation and Association

GREAT BRITAIN AND IRELAND.

THE ENCOURAGEMENT OF AGRICULTURAL CO-OPERATION
DURING AND SINCE THE WAR

OFFICIAL SOURCES:

- REPORTS OF THE DEVELOPMENT COMMISSIONERS for the Period from 12th May, 1910, to the 31st March, 1911, and for the Years ended 31st March 1912 to 1921. London, 1911 to 1921.
- REPORTS OF THE BOARD OF AGRICULTURE FOR SCOTLAND for the Years ended 31st December 1914 to 1920. Edinburgh, 1915 to 1921.
- ANNUAL GENERAL REPORTS OF THE DEPARTMENT OF AGRICULTURE AND TECHNICAL INSTRUCTION FOR IRELAND, 1913-14 to 1919-20. Dublin, 1915 to 1921.
- REPORTS OF THE CONGESTED DISTRICTS BOARD FOR IRELAND for the Years ended 31st March 1914 to 1920. Dublin, 1915 to 1921.
- Journal of the Board (now Ministry) of Agriculture*, Vols. XXI to XXVIII. London, 1914 to 1922.
- Journal of the Department of Agriculture and Technical Instruction for Ireland*, Vols. XIV to XXI. Dublin, 1913 to 1921.
- Scottish Journal of Agriculture*, Vols. I to IV. Edinburgh, 1918 to 1921.
- Information supplied directly to the International Institute of Agriculture by the Ministry of Agriculture and the Board of Agriculture for Scotland.

UNOFFICIAL SOURCES.

- REPORTS OF THE AGRICULTURAL ORGANIZATION SOCIETY for the Years ended March 31st, 1914 to 1921. London, 1914 to 1921.
- REPORTS OF THE SCOTTISH AGRICULTURAL ORGANISATION SOCIETY for the Years 1914 to 1920. Edinburgh, 1915 to 1921.
- REPORTS OF THE IRISH AGRICULTURAL ORGANIZATION SOCIETY for the Year ending 30th June, 1914; for the Period from 1st July, 1914, to the 31st March, 1915, and for the Years ending 31st March 1916 to 1920. Dublin, 1915 to 1921.
- Information supplied directly to the International Institute of Agriculture by the Agricultural Organization Society and the Irish Agricultural Organization Society.

For some years previous to the War it had been part of the settled policy of the British Government to give encouragement to agricultural

co-operation. This policy found expression in the sections introduced into various Acts of Parliament, such as the Small Holdings and Allotments Acts of 1907 and 1908, the Development and Road Improvement Funds Act, 1911, and the Small Landholders (Scotland) Act, 1911, authorizing grants to be made for its encouragement out of State funds. The War brought about no very striking development of this policy though some large special grants were given either during the War or immediately after the cessation of hostilities. It did, however, result in a more general recognition by the Government of the importance of agricultural co-operation, as was evidenced by the speeches of Ministers and by the recommendations of various committees of inquiry. Moreover, for the solution of certain problems connected with the food supply, co-operative methods were adopted on the initiative of the Government itself.

We propose here to give a statement of the financial encouragement given by the State to the promotion of agricultural co-operation, an account of the special applications of co-operative methods to war-time problems and, lastly, an account of the State encouragement given to certain forms of agricultural co-operation which, though not originally a war measure, was continued during the War.

§ 1. GRANTS AND ADVANCES FROM STATE FUNDS.

Even prior to the War encouragement was given to agricultural co-operation in Great Britain and Ireland in the form of grants from State funds to the various propagandist bodies engaged in its promotion. During the War these grants were in most cases continued and in some instances increased, but it is not possible to indicate precisely to what extent the grants given during the War are to be regarded as a war measure. We can only give a statement of the grants which were being made at the time of the outbreak of War and of those which were made during the War and in the years immediately following the cessation of hostilities. From this statement a general impression will be obtained of the relation between war conditions and the amount of the grants. We will deal separately with each of the propagandist bodies, but will indicate in connection with each any grants or advances which may have been made to organizations affiliated to it.

The Agricultural Organization Society. — Since 1909 the Agricultural Organization Society has received a grant from the Board (now the Ministry) of Agriculture out of the Small Holdings Account, a fund created by the Small Holdings and Allotments Act, 1907 (1) and maintained chiefly by annual grants from Parliament. The main purpose of this fund was to enable the Board of Agriculture to repay to county councils the whole or any part of the expenses incurred in proceedings relating to the

(1) The provisions of this Act were embodied in the Small Holdings and Allotments Act, 1908, which consolidated the laws relating to small holdings and allotments in England and Wales.

acquisition of land for small holdings, but the Act of 1907 also empowered the Board of Agriculture to make grants out of the Small Holdings Account to societies formed for the promotion of co-operation in connection with the cultivation of small holdings and allotments, and it is in the exercise of this power that grants have been made to the Agricultural Organization Society.

The first grant, which dated from 1 April 1909, was to be £1,200 per annum provided that the income of the society from subscriptions and donations in each year was not less than £1,200. By whatever sum the income exceeded £1,200, the grant was to be increased by a corresponding amount subject to not exceeding the maximum limit of £1,600. The grant in any year was to be calculated upon the income of the society from subscriptions and donations in the previous year.

The maximum was subsequently raised to £2,000 and it remained at this figure until 1918-19, when a special grant of £10,000 (which was definitely regarded as a war emergency grant) was given for work in the promotion of co-operation amongst allotment holders. At the same time the grant previously given was reduced to £1,000.

In the following year the special allotments grant was reduced to £5,000, but the general grant for work in connection with small holdings and allotments was raised to the fixed sum of £4,000, at which figure it has since remained. The special allotments grant was, however, discontinued in 1920-21.

Since 1911-12 the Agricultural Organization Society has received substantial grants out of the Development Fund. This fund was created by the Development and Road Improvement Funds Act, 1909, and consists principally of money specially voted by Parliament. To assist the Treasury in its administration of the Development Fund the Act provided that eight commissioners should be appointed, to be known as the Development Commissioners. On the recommendation of these Commissioners the Treasury may make grants out of the Fund for any purpose calculated to promote the economic development of the United Kingdom, and amongst the purposes specifically mentioned by the Act is that of aiding and developing agriculture by the organization of co-operation.

At the time the War broke out the Development Commissioners were making annual grants to the Society to cover the excess of its expenditure over its income from other sources, up to a maximum of £8,000. This continued until 1917-18, when the maximum was raised to £16,000. In 1918-19, the Development Commissioners gave to the Society a block grant of £6,000, together with £1 for every £1 raised as voluntary contributions and £4 for every £1 received as affiliation fees from the affiliated co-operative societies. In 1919-20 and 1920-21 the Society received from the Development Fund a block grant of £16,000, together with a sum equal to four times the voluntary income (subscriptions and affiliation fees) of the Society during the previous year. This method of calculating the grant was adopted with a view to increasing the voluntary income of the Society and gradually withdrawing the grant. For the year 1921-22, the grant

promised was a sum equal to twice the voluntary income, while for 1922-23 it will only be a sum equal to the voluntary income, and it will then cease altogether. The increased grants given since 1917-18 may be regarded as a special measure taken in view of the conditions obtaining during the War and immediately after the cessation of hostilities, and the gradual withdrawal of the grant as a measure of economy rendered possible by the return to normal conditions.

During the years 1917-18 to 1920-21, the Agricultural Organization Society received a special grant from the Board of Agriculture in repayment of expenses incurred in the work of organizing co-operative milk depots, which was undertaken by the Society at the Board's request. This grant amounted to £708 in 1917-18; £974 in 1918-19; £600 in 1919-20 and £177 in 1920-21.

In 1919-20 the Society received from the Treasury a loan on mortgage of £15,000 free of interest and repayable on 31 March 1922, to cover the expense of acquiring and adapting new premises for its central organization,

In Table I are shown the precise amounts of the various grants received by the Agricultural Organization Society in each year since 1913-14.

TABLE I. — *Grants Received by the Agricultural Organization Society since 1913-14.*

	Grant from Small Holdings Account	Special allotments grant	Special dairy grant	Grant from the Development Fund
1913-14	2,000	—	—	7,500
1914-15	2,000	—	—	8,000
1915-16	1,988	—	—	7,988
1916-17	1,861	—	—	6,861
1917-18	2,000	—	708	15,350
1918-19	1,000	10,000	974	16,752
1919-20	4,000	5,000	600	36,000
1920-21	4,000	—	177	28,000
1921-22	4,000	—	—	11,586

Scottish Agricultural Organisation Society. — At the time of the outbreak of War the Scottish Agricultural Organisation Society was receiving a grant from the Development Fund equal to 50 per cent. of its general expenditure on the organization of co-operative methods in rural districts in Scotland, with a maximum of £1,000. The grant continued to be given on this basis until 1919, when the Development Commissioners agreed to give a grant in aid of the Society's general expenditure, up to a maximum of £2,000. In 1920 the maximum was increased to £2,500.

Early in 1914 the Society applied for a grant from the Development Fund in aid of the salary and expenses of a Gaelic-speaking organizer

whom it was proposed to appoint to work solely in the Hebrides. The Development Commissioners recommended the payment by a grant from the Fund of one-half of the salary and expenses of such an organizer in the year 1914-15, with a maximum of £150. The Society also applied to the Board of Agriculture for a grant in aid and the Board, in view of the duty imposed upon it by the Small Landholders (Scotland) Act, 1911, of promoting and developing agricultural organization and co-operation, agreed to make a grant equivalent to the amount contributed from the Development Fund.

The organizer appointed was, however, called up in August 1914 with his Territorial Regiment and was subsequently killed in action. The grant was thereafter allowed to lapse, but in 1918 both the Board of Agriculture and the Development Commissioners agreed to a renewal of their grants on the same conditions originally imposed. The special grant from the Development Fund was continued in 1919, but in 1920 it was merged in the general grant. The grant from the Board of Agriculture still continues to be given.

Table II shows the grants received by the Scottish Agricultural Organisation Society in each year since 1914. It will be noted that the grant calculated upon the expenditure of one year is received in the following year.

TABLE II. — *Grants Received
by the Scottish Agricultural Organization Society since 1914*

Year	From the Development Fund		From the Board of Agriculture for Scotland in aid of the salary and expenses of a special organizer for the Hebrides
	in aid of the general work of the Society	in aid of the salary and expenses of a special organizer for the Hebrides	
	£	£	£
1914	820	—	—
1915	827	45	45
1916	648	—	—
1917	467	—	—
1918	755	—	—
1919	698	150	150
1920	2,000	150	150
1921	2,252	—	150

In 1914, a loan of £1,500 free of interest, for a period not exceeding five years, but repayable in whole or in part after three months' notice had been given on either side, was made by the Board of Agriculture to the Scottish Farm and Poultry Produce Federation, Ltd., which is affiliated to the Scottish Agricultural Organization Society. The Federation, which then comprised 53 co-operative societies organized for the purpose

of obtaining by mutual effort better prices for eggs and other farm produce, was greatly hampered by lack of capital, which precluded it from paying cash for the eggs and other produce received from the co-operative societies and also hindered the carrying out of its scheme for supplying the societies with farm requisites. A loan of £1,000 was also granted to the Federation to enable it to supply agricultural seeds to co-operative agricultural societies on more favourable terms than could be obtained by the societies individually.

From reports made to the Board of Agriculture for Scotland early in 1915 it appeared that the potato and oat crop in Lewis and Harris in the previous season had been poor and that consequently the crofters would require to purchase a larger quantity of seed than usual from merchants on the mainland. It was estimated that the cost of the seeds required would be £1,000 and of this amount half was contributed in equal proportions by the Scottish Advisory Committee of the Prince of Wales's National Relief Fund and the Board of Agriculture for Scotland, the other half being paid by the crofters. The work of purchasing the seeds and arranging for their re-sale and distribution in Lewis and Harris was carried out by the Scottish Agricultural Organisation Society.

In the exercise of the powers conferred upon them by Section 16 of the Land Settlement (Scotland) Act 1919, the Board of Agriculture for Scotland granted in 1920 to the Nether Lorn Agricultural Co-operative Society (affiliated to the Scottish Agricultural Organisation Society) a loan not exceeding £500, being half the estimated cost of the erection and equipment of a cheese factory at Clachen Seil, Argyllshire. The loan was given at 6 per cent. interest, repayable in ten years, no repayment of capital or interest to be made during the first two years. The Board also made provision for assisting in this manner one or two other schemes in Argyllshire.

Under the same section the Board also granted to the Port William Dairy Farmers' Association (also affiliated to the Scottish Agricultural Organisation Society) a loan of £3,500 to enable them to complete the erection of a milk depot at Port William, the total cost of which will be £16,000. The rate of interest on this loan will be 6 per cent. and the period of repayment five years.

The Scottish Smallholders' Organisation. — This society was formed in 1913 with the special object of promoting the interests of small holders in Scotland by various methods, including the organization of co-operative credit and of facilities for the disposal of their produce. In the first year of its existence the funds of the Organisation were derived entirely from voluntary subscriptions and from guarantees given by prominent supporters, but in 1914 the Board of Agriculture for Scotland agreed to give a grant, not exceeding £600 in all, of an amount equivalent to one half of the total expenditure, as approved by the Board, of the Organisation during the period from its inauguration to 28 February 1915. The full amount, £600, was actually paid.

In 1915 the Board of Agriculture for Scotland undertook to give the

Organisation a grant equal to one half the administrative expenditure of the Organisation for the year. The grant was continued on this basis until 1917, when the Board of Agriculture agreed to give in addition a special grant in aid of the Land Bank Inspector's salary. In 1918 another special grant, amounting to £250, was given for the payment of local sub-organizers. For 1919 the same grants were continued, with the addition of a further special grant of £200 towards the payment of an accountant and auditor.

In 1920 the Organisation applied to the Board of Agriculture for an increased grant. As the Scottish Agricultural Organisation Society had made a similar application to the Development Commissioners, the Board suggested to the two associations that they should agree to delimit exclusive spheres of influence, in order to avoid overlapping. The proposals were not accepted by either association, and as the greater part of the year had now passed, the Board advanced a sum of £800 (being half of the grant paid in 1919) to the Scottish Smallholders' Organisation to enable it to carry on its work until the total grants to be made were settled. A further sum of £450 was afterwards granted to the Smallholders' Organisation in respect of 1920, making a total grant for that year of £1,250. For 1921 the grant was, however, reduced to £600.

Table III shows the grants received by the Scottish Smallholders' Organisation in each year since 1914.

TABLE III. — *Grants Received by the Scottish Smallholders' Organisation since 1914.*

Year	From the Board of Agriculture for Scotland			
	Grant in aid of the general expenditure	Grant for the payment of local sub-organizers	Grant in aid of the salary of the Land Bank Inspector	Grant towards payment of an accountant and auditor
	£	£	£	£
1915	592	—	—	—
1916	507	—	—	—
1917	600	—	168	—
1918	861	—	158	—
1919	600	250	187	200
1920			1,250	
1921			600	

In 1914 the Board of Agriculture agreed to make a loan not exceeding £500 to the Scottish Central Markets, Ltd., to enable it to supply agricultural seeds to co-operative societies. The Central Markets, Ltd., is connected with the Smallholders' Organisation and undertakes the double duty of finding a profitable market for the produce of smallholders and

of the collective purchase of farm requisites on behalf of local societies. For various reasons, of the loan agreed to only £88 was required by the Central Markets. In 1915, however, a loan of £500 was made by the Board of Agriculture to the Central Markets for the purchase of manures as well as of seeds on a cash basis. A loan of the same amount was made in 1917, and in 1919 the Board of Agriculture made a loan of £2,000, free of interest for one year, to the Central Markets for the purchase of seeds, manures and feeding stuffs. A special short-term loan of £2,000, repayable in six months, was also made to the Central Markets in 1919 to meet the cost of seed oats and potatoes for distribution in Lewis. In addition to the loan, a grant of £381 was made towards the cost of freight, being half the sum expended by the Central Markets under that head. In 1920 a special short-term loan of £1,500 was made to the Central Markets to meet the cost of the provision of seed oats and potatoes in the Outer Hebrides.

The Irish Agricultural Organization Society. — In former years this Society received grants from the Department of Agriculture and Technical Instruction for Ireland in aid of its work, but these grants were discontinued in 1908. For some years prior to 1908 the Society had received small grants from the Congested Districts Board for the organization of agricultural credit societies and home industries societies in the Congested Districts. In 1908 the amount of the grant was fixed at £350 per annum, and this grant continued to be made to the Society until 1916, when it was withdrawn as a measure of economy.

Since 1913 the Irish Agricultural Organization Society has received grants from the Development Fund. An interim grant of £3,500 was given in respect of the period up to 31 March 1913, and for the year 1913-14 it was agreed to give a grant equal to the Society's own income in that year from affiliation fees and subscriptions, with a maximum of £4,000. For 1914-15 the grant was calculated on the same basis, but an additional grant of £1,000 was given. All grants subsequent to this were proportionate to the contributions received from the affiliated societies and the ratio decreased from year to year, it being the policy of the Irish Agricultural Organization Society to induce its affiliated societies to rely more upon their own resources and less upon State-aid for the upkeep of their central union. For 1915-16 a grant was given equal to £2 5s. for each £1 contributed by the affiliated societies in the same year. For 1916-17 the grant was equal to £2 for each £1 contributed by the societies in the previous year. For the years 1917-18 to 1919-20 it was equal to £1 5s for each £1 contributed by the societies in the previous year. For 1920-21 the grant was equal to the amount contributed by the societies in 1919-20. For 1921-22 a grant will be paid equal to 13s. 4d. for each £1 of contributions received in 1920-21.

Table IV (page 125) shows the grants actually received by the Irish Agricultural Organization Society in each year since 1914-15.

As early as 1898 the Congested Districts Board for Ireland began to make advances to the agricultural credit societies formed by the Irish Agricultural Organization Society in congested areas. The Departmen

TABLE IV. — *Grants Received by the Irish Agricultural Organization Society since 1914-15.*

Year	From the Development Fund	From the Congested Districts Board
	£	£
1913-14	5,500	350
1914-15	4,822	350
1915-16	7,358	350
1916-17	5,320	—
1917-18	5,400	—
1918-19	6,046	—
1919-20	7,820	—
1920-21	7,100	—

of Agriculture and Technical Instruction for Ireland, which was established in 1901, immediately adopted the same policy and made advances to credit societies in non-congested areas. The Departmental Committee on Agricultural Credit in Ireland, the Report of which was published in 1914, recommended, however, the discontinuance of the system of advances from State funds and the gradual withdrawal of the advances outstanding. This course was adopted both by the Department of Agriculture and by the Congested Districts Board and the outstanding advances were withdrawn during the war period.

§ 3. THE PURCHASE OF ARMY SUPPLIES FROM CO-OPERATIVE SOCIETIES.

As early as 14 August 1914 the Farmers' Central Trading Board asked the Agricultural Organization Society to approach the War Office with a view to arranging for the direct supply of produce from agricultural co-operative societies to the troops. On 9 September a conference took place between representatives of the Central Trading Board, of the Agricultural Organization Society and the War Office, when it was decided that societies should be put in touch with the Base Supply Depots. This was done and in several instances a large amount of produce was supplied by societies.

Shortly afterwards Farm Produce Committees were set up by the Board of Agriculture in each county in England and Wales to act as intermediaries between the military authorities and the farmers in the purchase of supplies. The Agricultural Organization Society brought its affiliated societies into touch with these committees, and considerable business resulted. Thus, for example, some of the agricultural co-operative societies in Yorkshire were able in this way to arrange for the sale of large quantities of hay by their members to the Purchasing Officers.

In October 1915 the Agricultural Organization Society was approached on behalf of the General Officer Commanding the 68th Division, stationed

at Bedford, in connection with the supply of vegetables and fruit to the troops under his command. The system under which they had been supplied had proved unsatisfactory in practice. It resulted in competition between the different units in order to secure produce, and this caused an inflation of prices; the quality of the produce, too, left much to be desired. The Agricultural Organization Society, in conjunction with the Divisional Purchasing Officer, formulated a scheme for purchasing in bulk for the whole Division, which was accepted by the General Officer Commanding and at once put into force. The scheme worked most successfully. The quality of the produce greatly improved, there was a saving to the military authorities, the growers benefited by the removal of intermediate profits, and, incidentally, the prices to the civilian population were also reduced.

The Army Council approved the extension of the scheme to other camps. A new committee was formed called the Army Canteen Committee, and the Agricultural Organization Society, at the request of the Army Council, nominated a representative to serve on it. Command Canteen Committees were also formed, on each of which the Agricultural Organization Society was represented.

The extended scheme necessitated the formation of a central purchasing body, from which the various camps could be supplied. A society was registered under the title of Agricultural Supplies, Ltd. This society did not distribute any profit; it charged a commission to cover management expenses, but any surplus was returned to the War Office. In its early days the policy of Agricultural Supplies, Ltd., was influenced by the Agricultural Organization Society, but the Army authorities gradually assumed control and it was eventually absorbed by the Army Canteen Committee.

When the sale of wool was controlled by the Government, working through the Contract Department of the War Office, the agricultural co-operative societies which had been engaged in the collection and sale of their members' wool were appointed as recognized collectors of wool from their members on behalf of the Government.

In 1917 arrangements were made to supply Munition Canteens with fruit and vegetables direct from societies of growers.

The Scottish Agricultural Organization Society was also requested by the military authorities to assist in the provision of vegetables and other produce for the troops, and took steps to organize the supply of such produce by local co-operative societies in Scotland to units stationed in their neighbourhood.

§ 3. THE PROMOTION OF CO-OPERATIVE CHEESE-MAKING.

Soon after the War broke out the Board of Agriculture advised the production of more cheese, and in the summer of 1915 they induced various local education authorities to establish migratory schools of cheese-making or to increase the number of existing schools. Grants were given to the

education authorities in aid of the expenses of the schools and the Board itself obtained a grant of £500 for the purchase of sets of apparatus to be lent to the local authorities.

The system was continued in 1916 and at the end of June of that year there were 37 migratory schools at work and instruction had already been given in 200 centres.

One of the results of the work of the schools was that it led dairy farmers to realize the advantages to be gained by co-operation in cheese-making. A so-called "co-operative cheese school" was established in Cornwall in April 1916. This was a school in which the volume of milk dealt with was larger than was the case with the ordinary travelling school and in which longer courses of instruction were given in each centre visited. Those resident within easy reach of the centre were received as daily students and a selected number of others from a distance were given scholarships to become resident at or near the school for a time. The school was only located at a centre where the farmers of the district would jointly undertake to supply daily a given quantity of milk (usually not less than 200 gallons), to accept payment for the milk on a strictly co-operative basis and to appoint, pay and place under the direction of the county instructress in charge of the school, for so long as the school remained at that centre, some person approved by the instructress who should act as their manager in the event of their deciding to make cheese co-operatively after the close of the school at that centre. A co-operative cheese school usually remained at a centre for from 8 to 12 weeks.

In 1917 nine co-operative cheese schools were conducted in seven counties — Carnarvonshire, Cheshire, Cornwall, Denbighshire, Herefordshire, Montgomeryshire, and Wiltshire. In 1918 the number had risen to 18, which were carried on in the same counties and four others, Anglesey, Berkshire, Cumberland and Flintshire. In 1919 fifteen schools were at work in Anglesey, Carmarthenshire, Carnarvonshire, Cheshire, Cornwall, Denbighshire, Flintshire, Herefordshire, Montgomeryshire and Wiltshire.

As a result of the work of these schools 32 co-operative cheese-making societies were formed. Beginning in 1916 with one society, 10 more societies were formed in 1917, 10 more in 1918 and 11 more in 1919.

One of the most important results attending the formation of co-operative cheese factories has been a considerable increase of milk production in the districts where they are formed. Thus in one district where very little milk was produced previous to 1917, a co-operative society was formed which during that year dealt with 30,000 gallons of milk, in 1918 with 64,000 gallons and in 1919 with no less than 108,000 gallons. These increases were entirely due to the keeping of additional cows; moreover the increase of dairying took place without any decrease in the quantity of other farm produce. It was noted, again, that six members of a society formed in 1917 who kept a total of 37 cows in that year increased the number of their cows to 68 in the following year.

§ 4. THE FORMATION OF CO-OPERATIVE MILK DEPOTS.

In the autumn of 1917 the Committee on Production and Distribution of Milk recommended, in their Second Interim Report, that steps should be taken to establish milk depots in districts where milk is produced in considerable quantities but through lack of organization does not ordinarily become available for human consumption. In order to facilitate the creation of such depots, they advised that the State should, if necessary, assist by lending a portion of the capital required.

Acting on this recommendation the Board of Agriculture obtained the sanction of the Treasury to lend capital, on the basis of 6 per cent. interest and repayable in a term of years. A general scheme was devised for the purpose and the work of organizing the depots was entrusted to the Agricultural Organization Society. It was for this purpose that the special dairy grants, to which we have already referred, were given to the Society.

The scheme was brought into operation about the middle of 1918 and by the end of that year ten depots had been formed. Five of these were in districts where co-operative cheese schools had been conducted. In August 1918 the depots numbered 299 members and were dealing with 7,500 gallons of milk per day. By the middle of November, the number of members had risen to 509 and the quantity of milk received at the depots to 68,000 gallons per day.

As in the case of the co-operative cheese factories, the formation of the milk depots was followed by an increase in the number of cows kept. Before the end of the year 1918 the number of cows kept in one district had increased by 25 per cent., in another by 45 per cent., and in a third by 50 per cent.

The special dairy scheme continued in operation until 31 March 1920. It was taken up with great energy in Wales, more particularly in North Wales, and the large number of societies formed were the means of bringing about a considerable extension of the dairying industry there.

§ 5. CO-OPERATIVE SLAUGHTERHOUSES.

When the meat supply of the country was placed under control, the Ministry of Food introduced a system whereby cattle and sheep were sold through selected markets, each covering a specified area. Controlled prices were fixed in accordance with a scale of grading and at each market grading committees were appointed, consisting of a farmer, an auctioneer and a butcher. All meat became the property of the Ministry and was distributed by its officials through butchers' associations, which were formed in all parts of the country. This system entailed the necessity of setting up Government slaughterhouses in certain districts.

No system of grading can be completely satisfactory to all parties and the Ministry advocated the general introduction of the sale of cattle and sheep on the dead-weight system. The suggestion met with opposition

from the farmers, who feared that they would not be credited with the weight of their own cattle. This opposition prevented the general adoption of the dead-weight system, but the Ministry decided to introduce it as an alternative to grading wherever there was a sufficient demand for it. They were anxious that the dead-weight system, where introduced, should have the full confidence of the farmers, and they considered that this confidence would be best obtained by allowing the farmers, working on co-operative lines, to control the slaughterhouses. The Agricultural Organization Society was approached and as a result of the negotiations a scheme was drawn up and approved.

The adoption of the scheme in any district was conditional on the majority of the farmers who wished to adopt the dead-weight system desiring to work on co-operative lines. The co-operative society became the Government slaughterhouse agent; it controlled the slaughterhouse under Government supervision; it appointed a technical manager and an accountant, both appointments however being subject to the approval of the Ministry of Food; it paid the farmers for the sheep and cattle brought in and received payment for the meat from the butchers on behalf of the Ministry. The only expenses for which the society was liable were the salaries of the technical manager and accountant. Slaughtering and other technical expenses were met from a fixed scale, and the Ministry of Food was responsible for the rent of the premises, cost of adaptation, etc. The expenses of the society were met by a commission of $1\frac{1}{2}$ per cent. on the value of the carcasses. The full carcase, including offals and hide, became the property of the Government, but sheep skins were either returned to the farmer, or value was allowed for them.

By the end of 1918 five co-operative slaughterhouses were working under the scheme. In each case the scheme was put into operation by already existing farmers' co-operative societies. In March 1919 eleven additional farmers' co-operative slaughterhouses were working successfully. By this time the near approach of decontrol had made it necessary to modify the scheme and the Ministry of Food no longer guaranteed the societies against loss.

Many other applications were made for the transfer of Government slaughterhouses to farmers' co-operative societies, but about the middle of 1919 the Ministry of Food announced that no more transfers would be sanctioned before decontrol. As the result of a conference held between representatives of the Ministry of Food, the Ministry of Agriculture and the Agricultural Organization Society on 30 October 1919, the Ministry of Food agreed that societies wishing to take over slaughterhouses on decontrol should have an option of transfer on all slaughterhouses not the property of wholesalers. They also agreed to pay an allowance by way of remuneration for management at the rate of £350 per slaughterhouse in lieu of the commission previously paid, the allocation of the allowance as between the slaughterhouses being entrusted to the Agricultural Organization Society. Until decontrol the co-operative slaughterhouses, which then numbered 24, worked under this arrangement.

The control of live stock and meat terminated on 4 July 1920. Transfers of slaughterhouses to co-operative societies were allowed a month before that date in order to give the societies experience in their management. In anticipation of decontrol arrangements were made for marketing the surplus meat supplies from the slaughterhouses through the Agricultural Wholesale Society at Smithfield and other wholesale markets.

The working of the societies after decontrol did not prove quite as successful as had been anticipated. Prices were offered to farmers for beasts at live weight which exceeded those on the dead weight basis, and they were tempted to withdraw their support from the co-operative slaughterhouses. On the other hand the sale of surplus supplies in excess of local consumption did not prove a difficulty; the arrangements made were quite successful and the Agricultural Wholesale Society could have handled much larger supplies.

§ 6. THE CO-OPERATIVE MARKETING AND PRESERVATION OF FRUIT AND VEGETABLES.

At the time the War broke out the fruit and vegetable crop was very abundant and there was risk of considerable waste owing to lack of marketing facilities. Steps were taken by the Government to develop the bottling and drying of fruit and the drying of vegetables. Experiments were made with the assistance of a grant from the Development Fund and large quantities of fruit conserving bottles were distributed. In the promotion of this industry the Agricultural Organization Society and its affiliated societies of growers took a considerable part.

In 1917 the Food Production Department of the Board of Agriculture came to the conclusion that the problem of marketing fruit and vegetables could best be dealt with by the formation of county marketing societies. These societies were started under the auspices of the Horticultural Sub-Committees of the Agricultural Executive Committees. They were formed on co-operative lines and adopted the model rules supplied by the Agricultural Organization Society. The growers themselves were encouraged to find as much capital as possible but an appeal was made on patriotic grounds to other residents in the counties to take shares in the societies.

While every effort was made to run the societies on sound business lines they were expected to handle the less remunerative branches of the business — the sale of the surplus produce of the small growers — as well as the sale of the produce of the larger growers. In recognition of this fact the Food Production Department agreed, subject to certain conditions, to make good any loss on the first year's working up to £250.

In some cases existing co-operative societies affiliated to the Agricultural Organization Society agreed to act as county marketing societies, but in many other counties special societies were formed. Some of these achieved considerable success under war conditions, though the results in other cases were disappointing; this was partly accounted for, however, by the fact that the fruit crop of 1918 was a failure.

The county marketing societies were formed as war emergency organizations and they were not in all respects fitted to cope with more normal conditions. The county, which was chosen as the unit of area for purposes of simplicity, is not always the most suitable area of operations. Under peace conditions, too, marketing societies have to face the keen competition of a highly organized trade, a competition which was scarcely felt during the War. It was also evident that they would have to devote greatly increased attention to the supply of horticultural requisites to the growers.

Consequently, on the cessation of hostilities, the question arose whether it was best that the existence of the marketing societies should be continued on separate lines and for horticultural purposes only, or that they should join forces with agricultural co-operative societies in the same area. It was suggested by the Agricultural Organization Society that only in districts devoted almost exclusively to intensive market gardening was the volume of business to be undertaken sufficient to justify the continuance of a separate society. The Society further expressed the view that horticultural trading could not be successfully conducted on co-operative lines unless the societies were constituted on a democratic basis and controlled by the growers themselves with the assistance of the most competent business managers who could be secured, and unless the area of operations was carefully delimited from a business point of view and worked intensively.

It is perhaps not surprising that in its Report for the Year ended 31 March 1920, the Agricultural Organization Society stated that many of the county societies established under the auspices of the Food Production Department were moribund and others were extinct. Apart from the inherent defects in their constitution, two difficulties confronted the co-operative marketing of fruit and vegetables; the railway transport system was at that time in an unsatisfactory condition and the abnormal shortage of sugar seriously affected the disposal of surplus fruit.

§ 7. CO-OPERATION IN CONNECTION WITH ALLOTMENTS AND SMALL HOLDINGS.

For some years previous to the War there was a steadily increasing demand in England and Wales for an extension of allotments. During the War this movement was strongly encouraged by the Government as a means of increasing food production and, as we have seen, special grants of £10,000 and £5,000 were given to the Agricultural Organization Society in 1918-19 and 1919-20 in aid of its work in promoting co-operation in connection with allotments.

It should be noted that such co-operation takes two distinct forms, often (though not necessarily) combined in the same society. The allotment holders may co-operate in the tenure of the land; that is, the co-operative society which they form may rent land (or even, though more rarely, purchase it) and let it in allotments to the members. Or again they may co-operate for the purchase of requisites or the sale of produce.

In 1917-18, to meet the demand from allotment holders for assistance in forming co-operative societies, a special Allotments and Small Holdings Department was formed by the Agricultural Organization Society, and in the following year, with the aid of the Government grant, a special allotments organizer was appointed for each of the fifteen branches of the Agricultural Organization Society, with the exception of the North Wales Branch, and, in addition, an allotments organizer was appointed for the London area. Each Branch Committee appointed an Allotments Sub-Committee, and a Joint Committee consisting of representatives of the Home Counties Branch, the Eastern Branch and the South-Eastern Branch was formed to advise in the organization of allotment holders in and around London.

In 1919-20, the constitution of the Agricultural Organization Society was further modified by the formation of a distinct Allotments Executive Committee at Headquarters and of separate Allotments Committees in the Branches reporting directly to the Allotments Executive Committee.

We have seen that even prior to the War the Agricultural Organization Society received a grant of about £2,000 a year in aid of its work in the promotion of co-operation in connection with both small holdings and allotments. When the special allotments grant of £10,000 was given in 1918-19, the ordinary grant was reduced to £1,000, but in the following year, the special allotments grant having been reduced to £5,000, the ordinary grant was raised to £4,000 and it remained at this figure when the allotments grant was discontinued. Thus the promotion of co-operation in connection with small holdings has also been specially encouraged by the State. In some cases, at the special request of the Board of Agriculture, co-operative societies were organized in connection with the settlements of ex-service men established by the Board.

Table V shows the progress of the co-operative small holdings and allotments societies since 1913, which was due in great part to the encouragement given by the State. Though it is not possible to distinguish

TABLE V. — *Statistics of Co-operative Small Holdings and Allotments Societies in England and Wales.*

Year	Number of societies	Number of members	Number of tenants	Area of land held (in acres)		Total	Sales
				from public authorities	from other landowners		
1913	141	14,117	(1)	8,015	5,315	13,360	£ 5,536
1914	179	15,280	(1)	9,119	5,404	14,553	7,691
1915	177	15,075	10,498	10,582	4,064	14,616	12,434
1916	174	17,449	11,395	10,444	4,334	14,778	13,266
1917	373	56,695	26,935	11,156	5,048	16,204	25,896
1918	572	90,320	30,228	10,380	4,549	14,929	70,819
1919	487	110,105	31,047	13,175	2,154	15,329	147,495
1920	1,113	116,022	45,010	12,790	5,439	18,229	171,651

(1) Figures not available.

between the small holdings societies and the allotments societies, it may be said that of the societies formed since 1916, the great majority are allotments societies. This is indicated by the smallness of the additional area acquired as compared with the increase in the number of societies and of tenants.

§ 8. LIVE STOCK IMPROVEMENT SOCIETIES.

Though not initiated as a war measure the encouragement given by the State to live stock improvement societies was continued during the War, which, indeed, demonstrated the urgent need of live stock improvement. In describing the encouragement given, we must deal separately with England and Wales, with Scotland and with Ireland.

England and Wales. — A grant for the purpose of improving the live stock of England and Wales was made to the Board of Agriculture from the Development Fund in 1913. It was intended to enable the Board to assist groups of farmers, especially the smaller farmers, to obtain the use of high-class bulls, stallions and boars. In order to impress on farmers the advantages of co-operation in securing the services of good sires, grants in respect of stallions were made only to clubs and societies. In respect of bulls, grants were also made as far as possible to clubs or societies, but in districts where bull societies could not be formed, grants were also made to individual breeders who were willing to place approved bulls at the disposal of their neighbours. In respect of boars grants were at first given only to clubs and societies, but in 1916-17 it was found necessary to relax this rule and to give them also to individual breeders.

Grants were made preferably to societies specially formed to take advantage of the scheme, provided they adopted rules which conformed substantially to those issued by the Board of Agriculture, but grants were also made to existing bull, stallion and boar societies, on condition that their rules were amended where necessary. The registration of the society was not essential.

Grants for stallions were not to exceed £80 for each approved stallion, and of this sum not more than £40 was to be a direct grant, the remainder being utilized for assisted nominations of a value not exceeding half the service fee. The grants for bulls at first did not exceed £15 per annum in respect of any one bull, but the maximum amount was raised to £20 in 1920. Not more than five such grants could be given to any one society. The grant for boars was at first £3, but was raised to £5 in 1920.

Table VI shows the number of societies and individual breeders who received grants in each year from 1914-15 to 1918-19. It does not include figures relating to an important scheme for the encouragement of light horse breeding, which was not carried out through the medium of societies.

The figures relating to horses in the years from 1915-16 onwards do not include the Cumberland and Westmorland Heavy Horse Society which did not possess any stallion, but gave assisted nominations.

TABLE VI. — *Grants to Societies and Individual Breeders for Live Stock Improvement in England and Wales.*

Years	Heavy Horses			Cattle				Pigs			
	Soc- ieties	Stal- lions	Total grant	Soc- ieties	In- divid- uals	Bulls	Total grant	Soc- ieties	In- divid- uals	Boars	Total grant
1914-15	65	72	9,100	285	26	370	13,700	100	—	107	1,200
1915-16	88	97	9,122	489	28	633	9,456	180	—	193	480
1916-17. . . .	93	108	6,050	543	15	659	12,550	186	15	216	1,000
1917-18. . . .	94	110	6,235	578	14	710	12,727	172	92	264	1,348
1918-19. . . .	101	122	12,281	604	7	721	10,389	156	167	350	990
1919-20. . . .	93	118	10,920	549	6	656	9,519	117	221	392	1,048
1920-21. . . .	86	105	9,133	554	6	659	12,035	127	275	424	1,953

Scotland. — The Board of Agriculture inaugurated in 1913 a scheme for encouraging the breeding of heavy horses by means of grants to "approved" societies, the expenditure involved in the working of the scheme being met by a grant from the Development Fund. The grants payable to any approved society were: (1) The annual subscription, up to a limit of 10s., of every small farmer who had a mare served by the society's stallion, and (2) half the service and foal fees, up to a limit of £2 10s., of each mare owned by a small farmer. In 1913 and 1914 only farmers occupying land not exceeding 50 acres in area or with a rental not exceeding £50 could benefit by the scheme, but from 1915 onwards the prescribed limits were raised to 100 acres or £100 rental. Special grants of £20 were also given to societies in the Orkney and Shetland Islands and in the Western Islands to enable them to obtain the services of a stallion from the mainland. In 1916 the grant from the Development Fund was reduced and it became necessary to discontinue the grants in respect of foal fees and membership subscriptions, while the contribution towards the service fee was limited to a maximum of 50s.

The Board of Agriculture have also in operation schemes for the improvement of cattle breeding. In counties other than the so-called "crofting counties" (1) grants are given to approved societies formed for the encouragement of cattle-breeding. The grants are on the following scale:

1. Yearling bulls. For Aberdeen-Angus and Shorthorn Bulls, £15; for Ayrshire and Galloway Bulls, £10. In no case was more than 50 per cent. of the cost price of the bull paid.

2. Two-year-old bulls. For Aberdeen-Angus and Shorthorn Bulls, £12; for others, £8. Grants for two-year-old bulls were only paid in re-

(1) These are the counties of Argyll, Inverness, Ross and Cromarty, Sutherland, Caithness, Orkney and Shetland. They are called "crofting counties" because of the prevalence in them of the "crofting" system, that is, of small holdings of arable land, the occupier of which had rights of pasturage in common with others.

spect of bulls which had been accepted for premiums in the previous year.

3 In the event of a society arranging with a farmer for the use of a bull of which he was the breeder or rearer, the grant payable was £12 for Aberdeen-Angus and Shorthorn bulls, and £8 for others.

In the crofting counties the grants could be given not only to approved societies, but to Crofters' Common Grazings Committees or other duly constituted committees. The grants were, in the case of bulls purchased by Committees or hired from owners who had purchased them: for Shorthorn and Aberdeen-Angus bulls, £15; for Galloway, Ayrshire and Highland bulls, £10; for Shetland bulls, £7 10s. When a bull was hired from his breeder or rearer the grants payable were £12, £8 or £6 according to breed. In the event of a grant being made for a second year in respect of the same animal, the grant could not exceed four fifths of the amount granted in the first year.

In 1921 the amount of the first year premiums was raised to £20 for Shorthorn and Aberdeen-Angus bulls and to £12 for Galloway, Ayrshire and Highland bulls, with corresponding increases in the second year premiums.

In the congested districts bulls were also supplied on loan, remaining the property of the Board of Agriculture.

Until 1915 the premiums were only awarded in respect of the services of cows belonging to small farmers who occupied land of less than 50 acres in extent or less than £50 rental, but in 1915 (as in the case of the horse-breeding scheme) the limit was raised to 100 acres or £100.

The expenses of the cattle improvement scheme, in so far as the crofting counties were concerned, were met out of the Board's own funds, but in regard to the other counties, they were met by a grant from the Development Fund.

A somewhat similar scheme was carried out to encourage and improve the breeding of pigs. Premiums were offered to societies or committees which arranged for the purchase or hire of boars, the amount of the premium being £5 in respect of each boar, but this sum was subject to reduction if less than 20 services were given by the boar to sows owned by small farmers, cottars, shepherds, and farm servants. In 1921 the amount of the premium was raised to £7 10s.

In Scotland (as in England and Wales) there is in operation a scheme for the encouragement of light horse breeding, which is not carried out through the medium of societies. There is also in operation a scheme for the encouragement of sheep-breeding, which does not here concern us for the same reason.

The grants received by the Board of Agriculture for Scotland in aid of its live-stock improvement schemes (other than the light horse breeding) are shown in the following table :

TABLE VII. — *Grants Received by the Board of Agriculture for Scotland in all of its Live Stock Improvement Schemes.*

Year	For heavy horse breeding	For improvement of other breeds of live stock
	£	£
1914-15	2,779	1,531
1915-16	6,000	2,720
1916-17	3,080	2,826
1917-18	2,961	3,477
1918-19	3,012	3,663

In Table VIII are given particulars of the societies and committees which have received grants for live stock improvement from the Board of Agriculture for Scotland.

TABLE VIII. — *Societies and Committees in Scotland which received Grants for Live Stock Improvement.*

Year	Heavy Horses			Cattle		Pigs	
	Approved societies	Mares served	Approved societies and committees	Premium bulls	Cows served	Premium boars	Sows served
1914	58	3,054	167	234	14,866	29	822
1915	98	7,115	221	357	20,349	63	1,292
1916	100	5,628	238	390	22,256	64	1,703
1917	99	5,560	265	445	24,422	69	1,805
1918	97	6,162	262	458	25,732	70	2,077
1919	102	6,559	252	448	23,560	70	1,740
1920	102	5,562	245	423	22,132	62	1,635
1921	95	3,420	217	435	22,705	59	1,489

Ireland. — The Department of Agriculture and Technical Instruction for Ireland has in operation various schemes for the improvement of live-stock. The horse-breeding schemes are not carried out through the medium of improvement societies, but such societies are eligible for the premiums offered for bulls and boars.

In 1914, the premiums for bulls were fixed as follows: for Kerry, Dexter, Galloway, and registered dairy bulls, £10; for other approved breeds, not less than £10 nor more than £15, at the discretion of the County Committee of Agriculture. This scale of premiums continued in force until 1918, when the following maximum premiums were fixed: for Kerry or Galloway bulls, £10; for Aberdeen-Angus or Hereford bulls, or for half-bred registered dairy bulls, £12; for Shorthorn bulls, £15; for pure-bred registered dairy bulls, £20.

For boars the maximum premiums in 1914 were £5 for the first year and £3 for the second year, and they remained at these figures until 1919 when the premiums were fixed as not less than £5 nor more than £8 for the first year and not less than £3 nor more than £6 for the second year.

For both bulls and boars special premiums were given to selected applicants in the congested districts.

Statistics showing the number of societies to which grants were made are not available.

§ 9. MILK-RECORDING SOCIETIES.

In all parts of the United Kingdom schemes were in operation before the War, and were continued during the War, for encouraging the formation and working of milk-recording societies, or (as they are sometimes called) cow-testing associations. We must deal separately with each of the three kingdoms.

England and Wales. — With the aid of a grant from the Development Fund, the Board (now Ministry) of Agriculture has made grants to milk-recording societies in England and Wales. Up to 1920 the grant was at the rate of £2 10s. per herd tested per year, subject to a limit of one-half of the expenses of the society. Experience showed, however, that until they had proved the commercial value of keeping milk-records, farmers were disinclined to pay a levy of 3s. to 5s. per cow, which was the approximate charge made to members of milk-recording societies. It was, therefore, decided in 1920 to increase the grant to a milk-recording society for the first and second year of its operations to £3 10s. per herd, and for subsequent years to £3 per herd.

Table IX shows the grants to milk-recording societies in England and Wales.

TABLE IX. — *Grants to Milk-recording Societies in England and Wales.*

Year	Number of Societies	Number of cows tested	Total amount of grant — £
1 April 1911 to 31 March 1915 . .	16	7,331	264
" 1915 to " " 1916 . .	20	9,811	660
" 1916 to " " 1917 . .	22	12,950	792
31 March to 1 October 1917 . . .	25	14,401	1,119
1 October 1917 to 1 October 1918 .	27	19,793	3,926
1 " 1918 to 1 October 1919 .	38	37,860	2,073
1 " 1919 to 1 October 1920 .	46	61,323	3,926

Scotland. — In 1911 a grant not exceeding £1,000 was made out of the Development Fund in aid of the work of the Milk Records Committee, which had for some years previously been promoting the keeping of milk records in Ayrshire with the aid of small grants from the Highland and Agricultural Society of Scotland and from the Ayrshire Herd Book Society.

The grant was not paid direct to the Committee, but through the West of Scotland Agricultural College. This arrangement continued until 1914, when the maximum grant was raised to £2,000, to be paid to the Committee through the Board of Agriculture for Scotland. At the same time the constitution of the Committee was amended and its title changed to "The Scottish Milk Records Association." The maximum grant was reduced in 1916 to £1,250, and to £1,230 in 1917, but was raised to £1,600 in 1919, and to £3,100 in 1920. Part of the money paid to the Scottish Milk Records Association is expended in grants to its affiliated local societies, especially in the first and second years of their operations, to enable them to obtain the necessary apparatus and to assist in what may be termed the propaganda work of demonstrating the practical utility of milk-recording.

Table X gives particulars of the local milk-recording societies which received grants in each year since 1914. The amounts of the grants to the Scottish Milk Records Association shown in the table are those paid in respect of the years under which they are entered.

TABLE X. — *Grants to the Scottish Milk Records Association since 1914.*

Year	Total amount of grants to the Scottish Milk Records Association	Number of affiliated local societies	Number of heids tested	Number of cows tested
	£			
1914	1,568	36	641	26,424
1915	1,571	35	640	26,500
1916	1,174	28	529	23,000
1917	1,082	24	468	20,300
1918	1,124	22	428	18,500
1919	1,499	25	492	20,172
1920	3,100	37	586	25,120
1921	4,264	44	671	27,700

Ireland. — In Ireland the Department of Agriculture encourages the formation of cow testing associations (as they are there called) by giving them grants equal to twopence per cow per monthly test during the first year of their existence, and by supplying them with the necessary forms. The Department also employs instructors to give lectures at meetings of farmers on the objects and advantages of cow testing associations and to visit existing associations.

There were 79 cow testing associations in Ireland in 1914, but the number fell considerably during the War, being 38 in 1915; 35 in 1916; 36 in 1917, and 30 in 1918. In 1919 the number rose to 44; the membership was 807 and the number of cows tested 9,370.

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ITALY.

MEASURES ADOPTED DURING THE WAR TO ENCOURAGE
AGRICULTURAL CO-OPERATION.

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In the early part of the War, owing the general mobilization which deprived all undertakings of their youngest and strongest employees and to the concentration of all efforts and all energies on the immediate object of preparation for carrying on the War, the co-operative movement in Italy had a temporary set-back and was almost brought to a standstill. Subsequently, however, when it became necessary to take steps to ensure the food-supply and to strengthen the economic resistance of the country, the policy followed by the Government in regard to the production and distribution of food-stuffs and to public works, agricultural credit and home colonization, contributed in no small degree to the development of co-operative distributive societies, co-operative societies for production and labour, and agricultural co-operative societies, which, already numerous in Northern and Central Italy, have spread also in Southern Italy. After the cessation of hostilities, the necessity of speeding up the resumption of the normal productive activity gave rise everywhere to new and fruitful enterprises, in which co-operation could not fail to play an important part, and thus co-operation, encouraged as it was by adequate State-aid, became a powerful instrument for the economic reconstruction of Italy. It is our present purpose to describe the different provisions which were made between 1914 and 1920 for the encouragement of co-operation. In doing so, we must group them according to the kind of co-operative society which they were intended to benefit.

§ I. PROVISIONS IN FAVOUR OF SOCIETIES OF AGRICULTURAL LABOURERS.

This group of provisions aimed essentially at encouraging a tendency which has become more and more marked in Italy in recent years — the tendency, that is, of the co-operative organizations composed mainly of labourers to devote themselves to agricultural undertakings, by acquiring land and cultivating or improving it by the labour and for the benefit of their members. It seemed to the Government that this tendency deserved to be encouraged as being of great economic value and of considerable social importance.

This movement on the part of labourers and peasants towards agricultural undertakings assumes various forms in Italy, beginning with the different kinds of limited participation in the undertaking and passing to the leasing and ownership of land, but it has attained its greatest development in the co-operative land-holding societies (*affittanze collettive*) which are one of the most characteristic forms of Italian co-operation. These are societies of agricultural labourers formed for the purpose of cultivating lands obtained, in the majority of cases, on a letting agreement, but in other cases on a produce-sharing agreement (*mezzadria, terzeria*) or even by purchase. According to the system of managing the land it is usualy to distinguish between land-holding societies with divided manage-

ment and land-holding societies with combined management. The former take a considerable area of land from the owner and cultivate it by dividing it in small parcels amongst the members; in the latter, on the other hand, the members cultivate the land in common, under joint management and technical direction.

The first measures taken to encourage these societies were contained in the Decree-Law of 20 September 1917, No. 1,676 and in that of 4 August 1918, No. 1,218.

The Decree of 1917 in fact, authorized the letting by private treaty to co-operative land-holding societies (1) of cultivable lands belonging to the State, and the Decree of 1918 gave a similar authorization in respect of cultivable lands belonging to the provinces, communes and other public bodies, and laid down also that, in case of lands being put up to public competition, preference was to be given to co-operative land-holding societies when the offers made were equal. The length of the lease was not, as a rule, to exceed nine years. However, in the case of lands belonging to the State, the length of the lease might, with the approval of the Council of Ministers, be extended to a greater number of years when special obligations were imposed on the society taking the land to reclaim or improve it or to carry out other works. Under the same circumstances, the length of the lease could be extended in the case of lands belonging to public bodies, subject to the approval of the competent authorities, after consultation with the Director of Itinerant Agricultural Instruction.

For lands belonging to the State, the annual rent is payable quarterly in advance. For lands belonging to other public bodies, it is payable half-yearly in advance.

As security for payment of the rent and for the fulfilment of other obligations towards the State arising out of the agreement, the society must give caution-money equal to a quarter's rent. At the request of the society, the caution may be formed during the first two years of the lease by the payment of a proportionate additional rent.

In the case of land leased from the provinces, communes or other public bodies, the caution must be equal to a half-year's rent plus the value of the live stock (if any) on the holding and must be given in cash, or by the assignment of a savings deposit to the body which is the owner of the land, in public debt securities or in securities guaranteed by the State. At the request of the society taking the land, the caution may be given in equal half-yearly instalments extending over a period of not more than three years from the date of the agreement (2).

(1) In the Decree they are referred to as "*cooperative agricole*," an expression which is also commonly used to denote co-operative land-holding societies.

(2) The Senate in ratifying the Decree of 4 August 1918, No. 1,218 at its sitting of 19 December 1920, made considerable amendments to it, principally for the purpose of better guaranteeing the bodies who are the owners of the lands, of ensuring that no technical difficulties should be placed in the way of agricultural production and of safeguarding the organized cultivators themselves both in regard to the technical and financial capabilities of

The Decree of 4 August 1918, No. 1,218, further laid down that the provisions of that Decree itself and those of the Decree of 20 September 1917, No. 1676, should be extended to certain agricultural bodies existing in the provinces of the former Papal States and of Emilia, on condition that they would undertake to have the lands directly cultivated by their members. The agricultural bodies in question are the so-called *università agrarie*, which have been formed in various communes in Latium, in other provinces of the former Papal States and in Emilia, to exercise and to safeguard the customary rights (*usi civici*) of sowing, grazing, cutting wood, etc., for the benefit of the rural communities and to cultivate the public lands.

Apart from the taking of lands belonging to public bodies, a new and most important field of activity has recently been opened up to agricultural co-operation in the occupation and acquisition of uncultivated or badly cultivated lands.

The economic crisis occasioned by the War has, in fact, caused the idea to be more generally accepted that land should be utilized to the utmost by cultivating lands hitherto uncultivated or improving the cultivation of those which have been badly cultivated, more particularly with a view to the production of cereals. This idea took practical shape in certain provisions contained in the Decree-Laws of 2 September 1919, No. 1,633; of 22 April 1920, No. 515; of 8 October 1920, No. 1,465; of 6 September 1921, No. 1,288, and of 23 October 1921, No. 1,523, which regulate the granting of lands to agricultural associations and particularly to co-operative societies. We will describe the principal regulations now in force (1).

Lands which are uncultivated or are insufficiently cultivated, having regard to their nature, to local agricultural conditions, and to the requirements of good husbandry, may be requisitioned in favour of legally constituted agricultural associations. In order to see how this fundamental condition is ascertained, it is necessary to bear in mind the purposes and objects expressly stated in Article 1 of the Decree of 2 September 1919 No. 1633, which are "to provide for the necessary increase of agricultural production and especially of the production of cereals, vegetables and edible tubers, and for the necessities of the agricultural population." The provisions, therefore, do not lay down punishments for negligence on the part of the occupier but order the requisition of the land for the purpose of obtaining an increase of production and of providing for the requirements of the cultivators (2).

the co-operative societies, and in regard to the fixing of equitable rents and the revision of the rents in the case of long leases. The Bill for the ratification of the Decree is now before the Chamber of Deputies, having been distributed at the sitting of 27 January 1921. (*Camera dei Deputati: Atti Parlamentari*, No. 1,189.).

(1) The provisions contained in the Decree Laws mentioned were consolidated in the Royal Decree of 15 December 1921, No. 2,047, published in the *Gazzetta Ufficiale del Regno d'Italia*, No. 25, 31 January 1922.

(2) The provisions contained in the Decree Law of 2 September 1919 No. 1,633, the object of which is to assure the maximum utilization of the national wealth and the fullest possible

The associations of which we have spoken must show that they are possessed of sufficient means and technical capacity to cultivate the lands to be granted to them and, if they are already in occupation of land, they must show that they have cultivated it in a satisfactory manner.

The period of the occupation must not exceed four years.

The bodies to which the lands are granted are obliged to commence, within the specified term, the work preparatory to sowing over the whole of the land occupied, which must not be sub-let or granted to other persons under any form of agreement whatever. If these obligations are not fulfilled the grant is cancelled.

The grant of the right to occupy the land implies the suspension of any previous agreement for the cultivation of the holding, subject to the payment of compensation for works in progress, for fruit still on the trees and for any other legitimate claim, provision being made for the payment of such compensation in the grant itself.

After the lapse of two years from the date of the decree authorizing the provisional occupation, the grantee can make application to have the right of occupation made definite, if the lands in question are "susceptible of important changes in the system of cultivation or are subject to obligations to reclaim" and if it appears that the association or body to whom they were granted has put them under cultivation in a satisfactory manner and has completely fulfilled the obligations stipulated in the grant.

yield from the land, are based on the legal principle in virtue of which the property of private individuals may be disposed of for reasons of public utility provided this is duly proved and compensation is paid. Moreover, historical precedents may be found for the Decree itself in earlier legal rules. In the exercise of the exceptional powers conferred upon it during the War, the Government had already by the Decree of 30 October 1915, No. 1,570, taken measures to facilitate requisitions in general, including requisitions of land ordered by the civil and military authorities. With regard to requisitions made by the civil authorities the Prefect was instructed to take the necessary steps by the issue of a decree in which the reasons for the action taken were explained and the drawing up of an inventory of the property to be occupied in the cases in which the circumstances arose which were contemplated by Article 7 of the Law of 20 March 1865 on the settlement of claims involving administrative bodies "when for serious reasons of public necessity the administrative authority must without delay dispose of private property." But the first decree containing special rules for the occupation of lands was that of 14 February 1918, No. 147, by which provisions were laid down for the so-called "agricultural mobilization." In this Decree the compulsory occupation of lands was contemplated not only in the case dealt with by Article 7 of the Law on the settlement of claims involving administrative bodies, but also as the sanction for the failure on the part of landowners to carry out specific improvements or other works which they had been requested to carry out. Another Decree containing similar provisions is that of 16 January 1919, No. 55, which confirmed the regulations for the organization, powers and duties of the *Opera Nazionale per i Combattenti* with which we will presently deal. The decree authorizes that body, as we shall see, by means of a special expropriation procedure, to enter definitely into possession of lands belonging either to public bodies or to private individuals, with a view to granting them to co-operative land-holding societies consisting in the main of ex-service men and to facilitate the work of improvement and settlement by rendering technical and financial assistance.

Compensation is also payable to the owner of the land and this must be fixed by the grant itself.

Lands definitely assigned to agricultural associations are granted to farmers under an occupation licence or a renewable lease with obligation to make improvements or, in so far as it may be possible, under an occupation licence with obligation to make improvements and with right to purchase.

On the expiry of the period of the occupation licence or lease the parcels of land return of right into the possession of the body or association, which arranges to make fresh grants. /

The occupier who has fulfilled the prescribed conditions has a preferential right to the new grant of the holding he has occupied.

It is the duty of the prefect of the province to arrange for the requisition of land in view of temporary occupation, subject to the approval of a special consultative body — the Provincial Commission or the District Committee. The Provincial Commission is composed of the Chief Excise Officer (*intendente di finanza*), who acts as chairman ; the Director of Itinerant Agricultural Instruction or another agricultural expert belonging to one of the agricultural institutions of the province ; or an engineer belonging to the Cadastral Survey or the Corps of Civil Engineers ; of two landowners who cultivate their own land or two farmers directly cultivating their holdings, and of two agricultural labourers, these being nominated by the Prefect after consultation with the farmers' and labourers' organizations respectively. The District Committee, formed wherever the importance of the operations and the local conditions require it, fulfils, in respect to lands within the limits of the district (*circondario*), the same functions as those assigned to the Provincial Commissions.

The definite right of occupation of which we have spoken is conferred by Royal Decree on the initiative of the Minister of Agriculture and subject to the approval of a special Central Commission which is formed by Royal Decree on the proposal of the same Minister and is composed of a Councillor of State, who acts as chairman ; of two Directors-General and of a Chief of Division of the Ministry of Agriculture ; of a magistrate of rank not inferior to that of Councillor of the Court of Appeal ; of two agricultural experts chosen from among the officials of the Ministry of rank not lower than that of Senior Inspector or from among the instructors in agricultural schools.

Against the orders made by the prefect appeal may be made to the Ministry of Agriculture within 15 days from receiving notice of them. The appeal does not have the effect of suspending the carrying out of the order ; the Minister of Agriculture, however, may suspend it for serious reasons on the advice of the Central Commission for the Granting of Lands.

The results obtained by the application of the measures indicated were certainly remarkable. The principle of co-operation succeeded in finding a wider field of experiment and of application in the cultivation of land ; many farmers, hitherto ignorant of it, were brought to a knowledge

of co-operative organization ; they were compelled to study, to realize and to face difficulties and responsibilities in the management, cultivation, and working of land ; the agricultural population became interested in the various problems of production with which they now found themselves more directly faced ; in a word, a great outburst of energy took place in individual and collective labour, with beneficial results as far as the essential purpose of increasing the cultivation of food-stuffs was concerned.

Between September 1919 and April 1920, 27,252 hectares were granted to agricultural associations and agricultural co-operative societies, particularly in the provinces of Rome, Caltanissetta, Catanzaro, Reggio Calabria, Cosenza, Foggia and Bari. Tens of thousands of hectares were subsequently granted to co-operative societies in Sicily and in Latium.

But in order that the labourers' associations might be able to develop their activity to the advantage of their own members and of the national economy, it was indispensable that they should be provided with capital proportionate to the needs of their lands. For this purpose it was necessary that the credit institutions, should find, in their dealings with the associations, not less adequate security than that which the societies which undertake public contracts are able to offer. In regard to co-operative land-holding societies and to the *università agrarie*, therefore, some modifications were made by the Decree of 8 October 1916, No. 336 to the right of distraint for the enforcement of the repayment of agricultural loans (*privilegio agrario*) regulated by the Law of 23 January 1887, No. 4,276. The object of these amendments was to give to this right of distraint that character of a charge upon the land which is indispensable if it is to serve as the basis for a development of agricultural credit commensurate with the importance of the new co-operative movement. The modifications introduced are of various kinds. In the first place, the right of distraint is extended even to fruit still on the trees ; secondly, the landlord's right of distraint, if it comes into conflict with the right of distraint in respect of agricultural loans, is reduced to two years. But the most important modification consists in the prohibition, when a sale takes place, to consign to the purchaser the objects to which the right of distraint is applicable until the debt to the lending institution has been paid. Failure to observe this prohibition is a misdemeanour on the part of the debtor who sells and gives the creditor the right to make good his claim against the purchaser. The purchaser, on the other hand, is put in a position readily to ascertain the existence of the right of distraint, as, instead of this being inscribed in the register of the Registrar of Mortgages, a copy of the loan agreement by which the right of distraint is brought into being is deposited at the office of the secretary of the commune and an extract from the agreement is put up on the communal notice-board.

To these provisions regarding the right of distraint the new decree added special reductions of the duty payable in respect of loans to co-operative land-holding societies and *università agrarie*. The registration duty on the loan agreements was fixed at 12 centesimi per 100 liras of capital

lent, this being the same rate fixed in respect of loans to co-operative societies for production and labour.

The Decree of 26 July 1917, No. 1,269, laid down other new provisions for making it easier for agricultural associations to obtain credit for the cultivation of cereals, extending to credit operations of this kind the right of distraint upon goods lying in the dwelling-houses and other buildings belonging to the holding, as well as making reductions in the duty payable.

The Decree of 14 July 1918, No. 1,142, which laid down provisions for credit to the *università agrarie* of Latium, is also important. It contains rules both for enabling these bodies to obtain loans for the provision of working capital more readily and in larger measure, and for placing them in a position to enfranchise, increase and improve the collective property, authorizing the National Insurance Institution, the National Fund for Workmen's Invalidity and Old Age Pensions (now the National Social Insurance Fund), the savings-banks, the *Monti di pietà* and the ordinary and co-operative credit institutions to grant loans for the purposes mentioned notwithstanding any provision to the contrary in laws, regulations or rules. It may also be noted here that in these provisions is introduced the principle that the State shall provide guarantees to the lending institutions for the payment of the annuity charges in respect of the loans granted to the *università agrarie*.

The object of the provisions of this Decree was not only to ensure, by means of the better and more effective working of the *università agrarie* of Latium, the carrying out of the local agricultural programme and the prosperity of the individual farmers, but also to do away with conflicts and differences between landowners, farmers and labourers, and to introduce into the Province of Rome a land system more in keeping with its centuries-old traditions and with the requirements of up-to-date agriculture.

But the need of credit felt by the different types of society which we have so far described — co-operative* land-holding societies, *università agrarie*, and the bodies and associations which have arisen in virtue of the special legislation relating to the granting of land to agricultural labourers — has in recent years considerably increased, owing to the strong tendency to purchase land, to the high price of land and to the high rents, as well as to the increased prices of the stock and equipment necessary for an up-to-date and intensive cultivation. The necessity on the other hand, of organizing a system of credit adapted to the particular conditions and requirements of associations of this kind which, being composed of workers of small means, had to have recourse in large measure to credit to obtain the capital necessary for taking up and cultivating land, induced the Government to create a special section of the National Credit Institution for Co-operation (of which we will speak later) known as the Land and Agricultural Credit Section (Decree-Law of 22 April 1920, No. 516) for the purpose of making loans to *università agrarie* and associations of agricultural labourers legally constituted in the form of co-operative societies or otherwise which are owners or tenants of lands or occupy

land under voluntary agreement or in virtue of the orders made by the administrative authority in the cases contemplated by the Decrees of 2 September 1919, No. 1,633, and 22 April 1920, No. 515.

The Land and Agricultural Credit Section is authorized to carry on the following business :

(a) loans for supplying working capital for the farming of land, its ordinary cultivation and the manipulation of the produce ;

(b) loans for improvements and for changes in the system of cultivation ;

(c) mortgage loans for the purchase of land, its enfranchisement from dues and for land improvement, up to 80 per cent. of the purchase price or of the estimated value of the land (1).

The Section has at its disposal a foundation capital of 50,000,000 liras, of which 25,000,000 liras was allocated to it by the State as a special contribution free from interest, while 15,000,000 liras were granted to it by the *Opera Nazionale per i Combattenti* and 10,000,000 liras by the National Social Insurance Fund. The State has also furnished 50,000,000 liras in the form of an advance for use in making loans for the provision of working capital and contributes to the extent of 2 ½ per cent. to the payment of the interest on the mortgage loans. When the Section has invested at least half its own capital in mortgage loans it may issue mortgage bonds up to an amount equal to ten times the aggregate capital guaranteed by the mortgages held, according to rules similar to those in force for the mortgage-bonds of the land credit institutions.

The formation of this Section, representing the definite collaboration of the State in the financing of these societies, is certainly the most outstanding fact in connection with the facilities given to them. The Section is, in fact, a sort of bank for peasants' associations and is authorized to furnish three kinds of credit — land credit, credit for making improvements, and credit for the supply of working capital.

In view of the sum fixed, it may be regarded as a first experiment which is being carried out, an experiment which is particularly important at the present time when all initiatives are highly appreciated which tend to the better solution of the land problem in the general interest of production.

Between 30 April and 31 December 1921 the Section issued to co-operative land-holding societies, agricultural associations, *università agrarie* and other bodies 1,829 loans guaranteed by bills to the total amount of 110,432,930 liras and mortgage loans to the amount of 6,500,000 liras.

In general it may be said that the measures taken in favour of the co-operative land-holding societies and kindred organizations have fully achieved their object. In fact, even before the War they had attained a considerable development and they are now giving indications of becoming

(1) Similar powers were conferred by the Decree-Law of 7 June 1920, No. 775, on the Agricultural Credit Section of the Bank of Sicily in relation to the co-operative land-holding societies in Sicily.

ing general and of spreading to all the regions of Italy, from Emilia and Romagna to Lombardy, Tuscany, the Roman Campagna, Apulia, Basilicata, Sicily. The National Federation of Agricultural Co-operative Societies (Bologna) has information relating to 269 co-operative societies, cultivating a total of 79,000 hectares of land, but in this number are not included many co-operative societies of Latium, of Southern Italy, and of Sicily — about one hundred in all — also farming a considerable area of land. It is calculated that the co-operative land-holding societies directing farm undertakings are about 400, cultivating in all not less than 150,000 hectares of land (1).

By the formation of federal bodies, such as the National Federation of which we have already spoken, the Consortium of Co-operative Land-holding Societies of Bologna, the Technical Agricultural Office of the Bank of Labour and Co-operation, the Interprovincial Agricultural Federation of Milan, and the Federation of the *Università Agrarie* of Latium, the co-operative land-holding societies of all kinds of North and Central Italy, as well as the *università agrarie*, have secured, for their own benefit, that continuous and effective assistance in technical and administrative questions which is necessary for the ordinary cultivation of their lands.

With regard to the results attained, it may be said that the land taken up is usually carefully cultivated and that the gross yield has generally increased in comparison with that obtained by the former occupiers and sometimes even in comparison with the average yield in the locality.

Speaking generally, it is clear, that, notwithstanding serious financial and technical difficulties, the co-operative land-holding societies and kindred societies have now made good in Italy. It may be said that the experimental stage has been passed and that, thanks to the recent credit facilities systematically granted to them by the State, they are well on the way to becoming an important factor in the national economy whilst, by ensuring the peaceful transfer of the ownership of the land to those who directly cultivate it, in accordance with the long-standing and keen desire of this class, they are removing the possibility of conflicts prejudicial to agricultural production.

§ 2. MEASURES TAKEN IN FAVOUR OF THE CO-OPERATIVE SOCIETIES FOR PRODUCTION AND LABOUR.

These societies, which were first formed by working men, particularly by workers belonging to the building trade, more than thirty years ago, and are one of the most striking manifestations of co-operative enterprise in Italy, arose with the primary object of freeing labour from the yoke of the ordinary contractors and of directly contracting for public works (construction and maintenance of roads, bridges and canals, carrying

(1) See GORNI (Dr. Olindo): *Le "affittanze collettive"*, la loro organizzazione e i loro principali moventi. *Critica Sociale*, No. 4. Milan, 16-28 February 1922.

out drainage, reclamation, irrigation and improvement works, etc.). Favoured by the laws on public contracts, they spread rapidly, especially during the War and in the period immediately following the cessation of hostilities, when serious social and economic considerations made it clear to the Government that one of the most urgent needs of the moment was an extensive and vigorous policy of public works promptly to ensure remunerative labour for the workers released from the Army and to contribute to the reconstruction and economic betterment of the country. In the execution of this vast programme of public works, for which sums amounting to several hundreds of millions of liras were allocated, the co-operative labour societies were called upon to play a considerable part.

Better to understand the rules which govern the giving of contracts to co-operative societies, it must be premised that in Italy there are three systems of giving contracts for public works: (a) by public competition; (b) by inviting particular persons to tender; (c) by private treaty.

The most usual method is by public competition. When contracts are to be given after being publicly put up to competition, the office which has the contract in its gift must in the first place publish an announcement of the competition at least fifteen days before the day on which it is to be held. This announcement must contain a statement of the fundamental conditions of admission to the competition and of the contract. To be allowed to tender, when artistic work or works of new construction are in question, the applicant must prove his capacity by presenting a certificate signed by the prefect or sub-prefect not more than six months earlier than the date of the competition to the effect that he has given proof of skill and of sufficient practice in the execution or direction of other similar contracts for public or private works. As a guarantee of good faith, the person making the tender must deposit a provisional caution, the amount of which varies between the tenth and thirtieth part of the amount of the contract. Minute regulations govern the holding of the competition. This is the most costly and complicated system.

Private tendering takes place when those who are thought to be suitable persons are invited by special letter to present themselves at the place and time named and to make their tenders, or when a statement, describing the work to be contracted for and the general and special conditions, is sent to the persons thought to be suitable, with the request that they will sign and return it, together with an indication of the price at which they would be disposed to carry out the work.

Lastly, the contract is said to be given by private treaty when the public authority negotiates with a particular person; this is the simplest of the three systems.

We will now describe the provisions relating to co-operative societies which were laid down prior to the War and in recent years, and to which is no doubt largely due their great development.

The first law which gave facilities to co-operative societies for taking up public contracts was that of 11 July 1889, No. 6,216, introduced as an amendment to the rules relating to State expenditure. By this Law, in

fact, it was laid down that contracts for public works could be made with co-operative societies for production and labour formed by working men, either by tender or by private treaty rendering it unnecessary for them to face free competition. The Law also favoured the co-operative societies in regard to payment for the work and in regard to the deposit of caution-money. The payments had to be made by the State in instalments proportionate to the work already carried out and the caution-money was not paid at the time when the contract was signed, but was built up by retaining 10 per cent. of each instalment to be paid. This arrangement removed the difficulty which these organizations had felt in depositing the caution-money required by public authorities as a guarantee for the fulfilment of the contract made with it.

To these facilities the Law of 1889 placed two limits, one relating to the amount and the other to the nature of the contracts; it only allowed contracts to be given to co-operative societies which were of less than 100,000 liras in amount and in which manual labour was the principal factor. As the first steps were being taken on an unknown and difficult path, it was not then thought desirable to sacrifice the principle of free and open competition for contracts of an industrial nature. Indeed, at the time when the Law was passed co-operation was still in its initial stages in Italy and many doubted whether the working classes would be able to undertake to carry out public works, which required the persistent and intelligent action of a single strong management. But experience did not confirm the doubts, and by the Law of 12 May 1904, No. 178, State administrations and administrations under the supervision of the State were authorized to give contracts for works of construction or maintenance, for supplies or for public services, by tender or by private treaty up to the value of 200,000 liras and without requiring the deposit of caution money, to legally constituted co-operative societies of workmen for production and labour or to legally constituted co-operative agricultural productive societies formed by small holders. In regard to payment for the work power was given to make instalments of payment in advance.

By the Law of 19 April 1906, No. 126, the exemption from the deposit of caution-money was extended also to co-operative societies for production and labour which competed in the public competitions for contracts of a value not exceeding 200,000 liras.

These laws were followed by that of 25 June 1909, No. 422, on the consortia of co-operative societies, which encouraged the tendency which had been noticeable for some time amongst the co-operative societies for production and labour to combine in consortia in order to compete for larger contracts. This law laid down the following principles :

(1) that legally constituted co-operative societies for production and labour may combine in a consortium in order to contract with the State or other authorities for the execution of public works in any part of the Kingdom ;

(2) that such works may be entrusted to consortia even by private

treaty, provided the value of the contract does not exceed twice the total amount of the contracts which might be entrusted to the separate co-operative societies forming the consortium and that the contract for any work should not exceed 2,000,000 liras.

(3) that the rules which apply to the building up of the caution-money in the case of co-operative societies shall also apply to the consortia.

The consortia are established by Royal Decree, enjoy complete independence and are placed under the supervision of the Ministry; they are corporate bodies and are subject to the rules of the commercial code in regard to their commercial operations and to all the effects which result from them.

Regulations for carrying out the laws above mentioned were issued on 12 February 1911 (No. 278). They enumerated as follows the kinds of co-operative society which were entitled to enjoy the benefit of the legislation relating to public contracts: (a) Co-operative societies for production and labour; (b) co-operative agricultural societies, such as land-holding societies, co-operative dairies, co-operative vine-growers' societies, co-operative distilleries, co-operative agricultural trading societies, co-operative societies for the sale of grain, and "any other co-operative undertaking having objects connected with agricultural production"; (c) mixed co-operative societies, which combine the objects and characteristics of some of the preceding kinds of society or set before themselves other co-operative aims.

All the prefectures of the Kingdom are obliged to ascertain the true nature and composition of the societies before they are permitted to enjoy the advantages which the law confers upon them. For this purpose there exists at each prefecture a register, known as the prefectural register of co-operative societies, in which are noted the most characteristic features of the societies which are considered to be entitled to compete for public contracts.

The Regulations referred to also govern the supervision of the co-operative societies to which they relate. The supervision is in the hands of the State and is entrusted to Provincial Commissions of Supervision, which are composed of the prefect, who acts as chairman, of public officials and of members nominated by the co-operative societies inscribed in the prefectural registers, and to the Central Commission for Co-operative Societies, which is invested with ample powers in all matters relating to co-operation and has in relation to the consortia of co-operative societies the same attributions as the Provincial Commissions have in relation to the individual societies.

Amongst the measures taken in recent years, the Decree of 6 February 1919, No. 107 (modified by the Royal Decree of 12 February 1922, No. 214), is of great importance; it reformed the system of public contracts in order to give it more rapidity and adapt it to the exigencies of the moment. It increased to 5,000,000 liras the maximum value of the works which could be entrusted to consortia of co-operative societies, and

authorized that even this limit might be exceeded when, on the advice of the Superior Council of Public Works, the administration was of opinion that the consortia offered sufficient technical and financial guarantees.

By the Law of 26 September 1920, No. 1,313, the maximum limit for the contracts for execution of public works which could be given to individual co-operative societies was increased to 1,000,000 liras.

The Law of 26 September 1920, No. 1,495 must also be mentioned; to give facilities to co-operative societies for production and labour and to their consortia for obtaining the credit necessary for the execution of works or supplies in respect of which they had entered into contracts with the State, it authorized the banks of emission to re-discount for the National Credit Institution for Co-operation bills up to the amount of 100,000,000 liras, at a rate equal to the ordinary rate of discount. This Institution was thus put in a position to satisfy the numerous requests for credit addressed to it from all parts of Italy by co-operative building, manufacturing or agricultural societies, etc.

For the same purpose of giving the co-operative societies for production and labour facilities for obtaining credit for the execution of public works, the Federal Credit Institution for the Revival of Venetia was authorized by the Royal Decree of 3 June 1920, No. 859, to make advances to the National Credit Institution for Co-operation up to the amount of 30,000,000 liras, to be applied to making loans in respect of works contracted for in the Venetian provinces, where it was necessary to provide for giving the greatest possible impulse to works of reconstruction and for the repair of property damaged by the war (1).

We shall see presently that the capital at the disposal of the National Credit Institution for Co-operation was considerably increased by other provisions.

By the increase in the maximum amount of the contract on the one hand and the credit facilities on the other, the co-operative societies, which were also favoured by the provisions made in the Royal Decrees of 28 November 1919, No. 2,405, and 1 February 1920, No. 189, to lessen unemployment and to increase the national production, were enabled considerably to extend their operations.

At the end of January 1922, there were in Italy 63 consortia of co-operative societies, legally constituted within the terms of the Law of 25 June 1909, No. 422, which grouped together the most important bodies in this field. To these must be added some federal bodies not established in the form of consortia according to the rules of the law mentioned.

For some of the consortia of co-operative societies we give figures showing the value of the works carried out and the works in progress

(1) To facilitate reconstruction in the districts devastated by the War by works of which the execution was entrusted to co-operative societies or to the consortia contemplated by the Decree-Law of 28 November 1920, No. 1,766, the Federal Institute of Credit for the Revival of Venetia was authorized by the Royal Decree-Law of 3 April 1921, No. 573, to make advances to the National Credit Institution for Co-operation up to the amount of 10,000,000 liras.

in the years 1920 and 1921: Bologna Consortium of Co-operative Societies for Production and Labour: works carried out in 1920, 17,000,000 liras (including works directly carried out, 4,869,000 liras, and works carried out by the affiliated co-operative societies, 12,500,000 liras); in 1921, works directly carried out, 5,368,000 liras, and works carried out by the affiliated co-operative societies, 13,000,000 liras. Reggio Emilia Consortium of Co-operative Labour Societies: work carried out between 1919 and 1921, 18,500,000 liras. Florence Consortium of Co-operative Societies for Production and Labour: in 1920, works carried out, 5,980,000 liras, and works in progress, 12,460,000 liras; in 1921, works carried out, 12,541,000 liras, and works in progress, 27,340,000 liras. Naples Consortium of Co-operative Societies for Production and Labour: works in progress in 1921 directly carried out, 10,092,418 liras and carried out by affiliated co-operative societies, 5,972,608 liras. Ravenna Federation of Co-operative Societies for Production and Labour: works carried out in 1921, 11,237,627 liras. Genoa Federation of Co-operative Labour Societies, works directly carried out in 1920, 7,829,000 liras, and works carried out by affiliated co-operative societies, 1,229,000 liras; in 1921, works in progress, about 8,000,000 liras. Arezzo Consortium of Co-operative Societies for Production and Labour: works in progress in 1921, 8,000,000 liras. Pisa Consortium of Co-operative Societies for Production and Labour: works in progress in 1921, 8,000,000 liras. Venetia Co-operative Association: works directly carried out in 1921, 7,500,000 liras. Carnia Consortium of Co-operative Societies for Production and Labour (Tolmezzo): works carried out between 1909 and 1921, 41,566,000 liras.

Other important organizations which, however, were not formed under the Law of 25 June 1909, No. 422, are the Milanese Federation of Co-operative Societies for Production and Labour which in the year 1920-21 carried out directly works to the amount of 5,764,769 liras and to the amount of over 10,000,000 liras through the medium of the affiliated co-operative societies; the Latium Federation of Co-operative Societies for Production and Labour, which has works in progress to the amount of about 15,000,000 liras; the Pavia Federation of Co-operative Societies for Production and Labour, etc.

From information collected it appears that at the end of 1920 the co-operative labour societies and their consortia which were directly obtaining credit from the National Credit Institution for Co-operation numbered 1,034 (or, if the affiliated bodies be included, 1,621), contained 286,000 members and possessed capital and reserves amounting to about 30,000,000 liras; they had works in progress, under contract with the State, with communes, with provinces and with private individuals to the amount of over 670,000,000 liras; they possessed plant and materials to the value of about 230,000,000 liras, and they had paid wages amounting to more than 216,000,000 liras.

The extent to which co-operation has been applied to the execution of works in Venetia is noteworthy. Up to 31 December 1920, out of

works to the amount of 500,000,000 liras for the reparation of war damages to the property of private individuals and of public bodies, works to the amount of fully 200,000,000 liras had been entrusted, with excellent results, to co-operative societies and their consortia, and the figure has since been considerably increased. Before the War there were a hundred co-operative societies in that region; at present there are more than 600 and they include between 70,000 and 80,000 workers, with technical direction and administrative organization, grouped in federations and assisted by credit institutions.

Figures such as these, while they show that the encouragement given to this characteristically Italian type of society has had the most beneficial results, prove also, at the same time, that co-operative organization is one of the systems best adapted for solving, at any rate partially, the problems of labour.

§ 3. PROVISIONS IN FAVOUR OF CO-OPERATIVE SOCIETIES FORMED OF EX-SERVICE MEN.

The gradual return of the service men to the economic and social life of the country was from the beginning accompanied by a decided tendency on their part to adopt co-operative methods by which they hoped to be able to assure a profitable resumption of labour to all those who had been obliged to interrupt their normal work. This movement, which quickly became so general and persistent as to assume a quite special importance, received a strong impulse and support from a series of measures taken by the Government in favour of the service men, conspicuous amongst which are those for the formation of the *Opera Nazionale per i Combattenti*, for the granting of free insurance policies to ex-service men and for authorizing loans for productive purposes on the security of these policies. In examining these provisions we shall see the manifold advantages which this new group of co-operative associations derived from them.

The *Opera Nazionale* was formed by the Lieutenantcy Decree of 10 December 1917, No. 1,970, for the purpose of "making provisions for giving economic, financial, technical and moral assistance to ex-service men" by methods which, while they afford the greatest possible benefit to individuals, will also serve "to promote the technical, economic and civil conditions which will enable the labour forces of the nation to have the greatest possible productivity." It is a corporate body, under independent management, and has a capital composed of a foundation capital of 300,000,000 liras, the net returns on the working, and legacies and donations from individuals or corporations; it also has at its disposal all the funds which the State Treasury allocates to it for making loans on insurance policies.

The *Opera Nazionale* is managed by a Council composed of nine members, nominated by Royal Decree, on the proposal of the Minister of the Treasury, after consultation with the Council of Ministers. At least four members of the Council must be chosen from among citizens who are not

officials of public administrations and who have given proof of considerable technical and administrative capacity in the pursuit of agriculture or of some branch of industry or commerce. The *Opera* is supervised by a group of three auditors nominated by the Ministry of the Treasury.

The organization and duties of the *Opera Nazionale* are laid down by regulations which were approved by the Lieutenantcy Decree of 16 January 1919, No. 55, and its work is carried out along three distinct lines: (a) agricultural, (b) social, and (c) financial.

The work along agricultural lines, which is of special interest to us, is directed:—

(a) to form a large landed property by means of the lands acquired by the *Opera*, the public lands belonging to the State, to the provinces, to the communes, to benevolent institutions, to public bodies and to the ecclesiastical bodies which were not dissolved, and the lands belonging to private owners which are subject to the obligation of reclamation or which may be susceptible of important changes in the system of cultivation;

(b) to develop this property by carrying out all the works which may be necessary for that purpose;

(c) to colonize it.

As for the public lands belonging to the State or to the other bodies mentioned when they are declared by a Central Arbitration Board, sitting at Rome and composed of two superior magistrates, a Councillor of State, the Director-General of Agriculture and the Director-General of Labour and of Thrift, to be susceptible of important changes in the system of cultivation, or when they are subject to the obligation of reclamation, they are transferred, by an order of the Arbitration Board itself, to the *Opera Nazionale*. Other rural property belonging to the same bodies the *Opera* may apply to take in emphyteusis or on long lease.

As to the lands belonging to private owners and in the condition described, the Central Arbitration Board, following a special procedure which has been laid down with a view to safeguarding the interests of those having rights in them, authorizes their transfer to the *Opera Nazionale* and their immediate occupation by it.

If it is possible to carry out important changes in the system of cultivation of these lands, the *Opera Nazionale*, having obtained the order transferring them, proceeds to execute the necessary work (1).

For the purpose of bringing the land so acquired under cultivation, the *Opera Nazionale* may undertake or contract for the execution of public works, availing itself as far as possible of the labour of service men. It has a right of preference over any other body, or society or firm or consortium.

In connection with our present inquiry, Article 25 of the Regulations

(1) To the former owner is reserved the right of buying back the improved property by paying the price received, plus the increased value, on condition that he assumes certain obligations in respect of the future utilization of the land.

is of some importance. According to this article the *Opera Nazionale* may provide for the execution of the works above referred to and the works for the reclamation of the lands acquired as above described, in whatever manner they may have become its property, not only directly but by entering into contracts for the execution of all or part of such works with co-operative labour societies, consortia, companies or firms which, besides offering the necessary technical and financial guarantees, pledge themselves to give preference in the execution of the works entrusted to them to workers who were formerly service men. The *Opera Nazionale* may also promote the formation of such bodies or take shares in them or supply them with capital and with the necessary technical means.

Even more important is the principle laid down in Article 26 of the Regulations under which the lands which have become the property of the *Opera Nazionale*, if they can be immediately cultivated, even if it be only with the technical and financial assistance of the *Opera Nazionale*, must be granted to service men who will directly cultivate them or to co-operative societies of agriculturists who are mainly service men, either under a renewable lease with obligations to effect improvements or under an occupation licence with obligations to effect improvements and right to purchase. Lands in respect of which important improvement works have had to be carried out or important changes in the system of cultivation have had to be made may also be granted, under an occupation licence, to co-operative labour societies which have carried out works for bringing the property of the *Opera Nazionale* under cultivation, but preference must always be given to individual service men or to co-operative societies of agriculturists who are mainly service men.

In the agricultural year 1920-21 lands containing 17,182,762⁷ hectares were granted to co-operative societies for ordinary cultivation. Of these 9177,7019 hectares were in Sicily; 4758,8467 hectares in Latium; 1580,6890 hectares in Calabria; 640,2384 hectares in Basilicata; 590,6593 hectares in Apulia; 408,5484 hectares in Campania, and 26,0790 in Umbria. With these co-operative societies and with others which may apply for grants of land agreements will be entered into giving occupation licences with obligations to effect improvements and with right to purchase as soon as they proceed to the division of the lands.

The *Opera Nazionale* also promotes the creation of agricultural colonies and new villages settling in them mostly agriculturists who are ex-service men; it encourages the formation of co-operative societies and agricultural associations composed mainly of ex-service men; it directs and supervises the cultivation of lands and the carrying out of land improvement works; it promotes associations and institutions "which aim at securing the solidarity of the cultivators" in purchase, in sale, in insurance, in the manipulation of agricultural produce, and in the pursuit of the small industries auxiliary to agriculture; it supplies credit, directly or through the medium of organizations to which it delegates its powers, to occupiers of land for making agricultural improvements and changes in the system of cultivation, granting long term loans repayable

by instalments, and facilitates the granting of credit for the acquisition of machinery, implements, live stock, etc., by the institutions authorized to give such credit, to agriculturists who are ex-service men and to co-operative societies which it may have placed in occupation of lands belonging to it; lastly, it gives financial and technical assistance in the exercise of the customary rights (*usi civici*) and in the cultivation of the public lands (*beni di dominio collettivo*), for the enfranchisement of lands burdened by customary rights, for the settlement of lands formerly so burdened which have not been improved and which are susceptible of important changes in the system of cultivation, and in general for the utilization of the lands occupied by communities and agricultural associations.

As may be seen, the principle followed in the provisions which we have described concerning the agricultural section of the *Opera Nazionale* is clearly that of co-ordinating, for the benefit of the ex-service men and of the co-operative labour societies and co-operative land-holding societies, the indispensable factors for the better cultivation of the land, namely labour, technical capacity and capital, in the interest both of the individual and of the community.

In October 1921 the landed property of the *Opera Nazionale* was of a total area of 37,457.7914 hectares, which was thus divided: lands assigned to it by orders of the Central Arbitration Board, 27,969.6343 hectares; lands acquired by private treaty, 2,443 hectares; Crown lands, 7045.1571 hectares.

It may here be noted that the Committee of Management of the *Opera Nazionale*, with the object of extending to the greatest possible number of peasants the benefits arising from the assignment of the Crown lands to it by the Decree-Law of 3 October 1919, No. 1,792, has decided to sell such of these lands as are best adapted for sub-division into small holdings, and to apply the proceeds, which it is estimated will amount to about 3,000,000 liras, to provisions of a social character for the exclusive benefit of ex-service men.

The object of these provisions is to give them facilities for acquiring land, however it may have come into the possession of the *Opera Nazionale* and to make it more advantageous for them to do so.

It has been decided, in the first place, that the grant to peasants who are ex-service men of all these lands, which will normally take the form of agreements for occupation with obligation to effect improvements and with right to purchase, shall be made at cost price, without increase of any kind for expropriation expenses or for general or administrative expenses, and without any charge in connection with the agreement itself.

The period during which the holding is being improved must not exceed five years and during this period the rent payable will not exceed three per cent. of the selling price of the holding while the taxes will be paid directly by the *Opera Nazionale*.

Apart from all other State-aid and facilities, special premiums are offered to encourage the erection of buildings on the holdings. The *Opera Nazionale*, moreover, besides assisting the peasants who are ex-

service men to take advantage of the provisions contained in the special laws relating to the erection of dwelling houses, will prepare designs of various types of such houses and will distribute them widely.

When the improvements have been carried out, the holding will be definitely transferred to the occupant, subject in certain cases to the right of the former owner to buy it back. At least 25 per cent. of the price must be paid when the land is transferred. The remainder may be paid in five years, by annual instalments of capital together with interest at 3 per cent. Even the insurance policy with which the ex-service men are provided can, after the initial payment of 25 per cent., be assigned as security for a part of the price and in this case it will be taken at its full nominal value, and the purchaser will only be under the obligation to pay interest at three per cent. until the policy matures. The lots sold will be mortgaged in favour of the *Opera Nazionale* as security for the exact fulfilment of the obligations assumed.

In the case of grants made to co-operative societies composed of ex-service men, the advantages described will be applicable only to peasant members who are ex-service men.

As to the sale of the lands formerly belonging to the Crown from which, as we have mentioned, the means are to be derived for conferring the advantages above indicated, the Committee of Management of the *Opera Nazionale* has decided that such lands shall be sold only to peasants who are ex-service men, either as individuals or as members of co-operative societies, at preferential prices fixed in advance on the basis of certain considerations, such as capacity for work, size of family, the fact of being already a cultivator of land, etc.

The *Opera Nazionale* is thus carrying out one of the most important functions attributed to it by its Regulations, that of providing for the formation of a large landed property for the purpose of granting it to those who will directly work it, giving always an absolute preference to individual ex-service men or to co-operative societies mainly consisting of ex-service men.

A very effective impulse has also been given by the *Opera Nazionale* to the co-operative movement amongst ex-service men by granting loans on the security of the insurance policies given to them by the Lieutenantcy Decree of 10 December 1917, No. 1,970, to which we have already referred.

This Decree authorized the National Insurance Institution to issue the following policies, completely free from any obligation to pay premiums, in favour of soldiers and non-commissioned officers of combatant units:

(a) for a capital of 500 liras in favour of soldiers and for a capital of 1,000 liras in favour of non-commissioned officers, payable immediately after the death of the insured person if he were killed in action, or died of wounds received in action or from illness due to war service;

(b) for a capital sum of 1,000 liras in favour of all soldiers and non-commissioned officers belonging to combatant units, payable: (1) immediately after the death of the insured persons if this happened during the War

and was due to causes which did not give the right to the payment of a capital sum in lieu of the war pension: (2) immediately after the death of the insured persons, if that occurred within 30 years from the date of the policy: (3) in any case, the capital sum was payable to the insured person at the end of 30 years from the date of the policy, if he were still alive.

In Article 4 of the Decree it was laid down that after the conclusion of the War, the insured persons should have the right, not less than three months from the date of demobilization, to ask for the payment in advance of the sum of 1,000 liras assured by the mixed policy, with the proviso "that it should be invested in instruments of production and of labour and that adequate security should be given."

This provision was intended to render it easier for the demobilized service men to resume their work, to bring about the revival of the small productive industries carried on by individuals, and to increase the national production.

As the policies in question were mixed policies, the sum assured being payable on the death of the insured person or at the end of thirty years, it is clear that by payment in advance the legislature intended a loan upon the security of the policy.

By the Decree of 7 March 1920, No. 283, rules were laid down for the granting of such loans. They are given by the *Opera Nazionale* either directly or through the medium of credit institutions or savings banks authorized by it. The loans are granted on the following conditions:

(a) that the policy shall be assigned to the *Opera Nazionale* or to the lending institution;

(b) that the sum applied for shall be invested in instruments of production or of labour;

(c) that the insured person shall undertake to repay the sum within a period to be determined according to the return which may be expected from the investment made.

The amount of the advance may be as much as the nominal value of the policy; in that case that part of the sum which corresponds to the actual or surrender value of the policy (which in the current half-year is 345 liras) is fully covered, and for the balance, up to 1,000 liras, the operation is one of personal credit, specially guaranteed.

The *Opera Nazionale* or the lending institution may for this purpose require that a promissory note shall be given and may provide that the instruments of production or of labour in which the sum advanced is invested shall remain its own property, to the extent to which it is greater than the actual value of the policy, until such time as the loan is fully repaid.

During the five years following the date on which the Decree entered into force, interest on the loans will be paid by the insured persons at a rate not exceeding 3 per cent. Whatever interest may be payable beyond 3 per cent. will be paid by the *Opera Nazionale*, but towards this the Treasury will contribute not more than 1 per cent.

But besides the system of advances made to individuals on the secur-

ity of the policies, there is that of advances on the security of policies assigned to co-operative societies as an addition to their share capital a system which has great economic utility. The policies may be assigned to co-operative land-holding societies, co-operative societies for production and labour, co-operative credit societies or co-operative distributive societies. In doing so, the members transfer to the co-operative society those means of obtaining credit which they themselves have by reason of the policy; in return for this, the members are given shares of a value equal to the advances received by the society on their respective policies. These shares are subject to a lien until the member has paid for them.

When the insured person fails to fulfil the obligations assumed in respect of the loan granted to him, the *Opera Nazionale* or the lending institution will have the right to surrender the policy. In this way the lending institution has the certainty of being able to recover the money lent, at any rate up to the amount of the surrender value of the policy, the risk being confined to the balance over and above that value. In cases in which the insured person dies before having completely repaid the advance, the *Opera Nazionale* will be paid the balance due out of the capital sum payable at death.

All documents relating to these loans are exempt from the payment of duty.

The want of sufficient share capital and the difficulty of obtaining credit are, for newly-formed co-operative societies, the obstacle most serious and most difficult to overcome, but by means of the assignment of insurance policies by the members to the society and the advances made upon them, the obstacle may be in a large measure overcome, with the further advantage to the society of being able to obtain credit on preferential terms as far as the rate of interest is concerned (3 per cent.); hence the great economic importance of the measure.

In almost all cases the *Opera Nazionale* acts through organizations to which it delegates its powers, reserving to itself the functions of direction and of supervision. In this manner, while an undesirable and cumbersome centralization is avoided, it is possible to utilize for advances on the security of the policies the funds which the credit institutions and savings banks will think fit to devote to that purpose in consideration of the lofty social aims which it is sought to attain by these transactions, or of the special guarantees which they offer.

Up to the end of December 1921 advances were made on the security of policies by the authorized institutions to the amount of about 155,000,000 liras, of which more than 140,000,000 liras were granted to individuals and more than 15,000,000 liras to co-operative societies.

The *Opera Nazionale* has, moreover, deemed it necessary to encourage the granting of credit to co-operative societies of ex-service men, even beyond the value of the policies, in all cases in which the advances proved to be insufficient.

Now in view of the impossibility of creating locally an adequate

financial organization of its own, it delegates this function to the institutions which ordinarily carry on co-operative credit business, making suitable agreements with them. And since it may happen that such institutions do not always have at their disposal the financial means required for complying with the numerous applications for credit, it supplies the necessary capital to them.

Another way, not less important, in which the *Opera Nazionale* gives credit facilities to co-operative societies of ex-service men is by contributing to the payment of the interest due by them upon advances obtained, otherwise than upon the security of policies, from other credit institutions. The co-operative societies for production and labour which are mainly composed of ex-service men may apply for this contribution, which must not exceed 2 per cent.

Lastly, the *Opera Nazionale* directly supplies credit, otherwise than on the security of policies, to those co-operative societies which, though able to offer the necessary guarantees, do not succeed in obtaining credit from the institutions to which the *Opera Nazionale* has delegated its powers. In all such cases, the *Opera Nazionale* reserves the right to exercise, by means of representatives, the fullest supervision over the technical and administrative working of the societies financed.

The many forms of encouragement given by the *Opera Nazionale* to co-operative societies which we have here briefly described and those which, for sake of brevity, we omit to mention are all based on the provisions of the regulations which govern its working, and it is accordingly to these provisions that the development attained by the co-operative societies of ex-service men is largely due.

From a recent inquiry made by the *Opera Nazionale* it appears that up to the end of September 1921 it gave assistance, through the medium of the local organizations to which it delegated its powers (*Uffici provinciali di assistenza*), to 1,137 legally constituted co-operative societies, containing 178,967 members, of whom 147,431 were ex-service men. These 1,137 co-operative societies may be classed as follows: 364 co-operative societies for production and labour, containing 27,132 members, of whom 22,136 were ex-service men; 113 co-operative land-holding societies, 80 of which contained 15,762 members, of whom 13,318 were ex-service men; 438 co-operative distributive societies, containing 94,804 members, of whom 78,756 were ex-service men; 134 mixed co-operative societies, containing 40,480 members, of whom 32,640 were ex-service men. Of the co-operative land-holding societies almost all were for the purpose of cultivating land on the system of separate management; the most successful societies are those which have been formed in the provinces of Padua and Treviso, and in some districts in Emilia, Tuscany and Latium.

The co-operative societies above enumerated are distributed according to regions as follows:

Venetia, 183 societies. The movement is on the whole in a satisfactory condition.

Abruzzi and Molise, 118 societies. The movement is developing in the provinces of Aquila and Chieti.

Sicily, 118 societies.

Apulia, 103 societies. The most successful societies are found in the province of Bari and in the district of Taranto.

Calabria, 95 societies.

Sardinia, 82 societies. The movement is fairly successful in regard to co-operative distributive societies and is making progress in regard to co-operative societies for production and labour.

Lombardy, 81 societies. The movement is strongest in the provinces of Milan, Cremona and Mantua.

Latium, 72 societies of varying strength.

Tuscany, 62 societies. The best societies are found in the provinces of Florence and Grosseto.

Campania, 50 societies.

Emilia-Romagna, 47 societies. The movement is soundest in the provinces of Bologna and Parma.

Piedmont, 31 societies. The movement is strong in the province of Turin.

The Marches, 28 societies. The movement has made most progress in the provinces of Ancona and Pesaro.

Basilicata, 24 societies.

Umbria, 20 societies. The movement is making progress.

Liguria, 18 societies. The co-operative labour societies are well developed in the province of Genoa.

Venetia Julia, 5 societies. The movement is only in its initial stages.

Besides the 1,137 to which, as we have said, the *Opera Nazionale* renders assistance, it is calculated that there are about 400 other societies of the kind, so that it may be estimated that there are approximately 1,500 legally constituted co-operative societies in which the number of ex-service men is at least a bare majority of the total number of members.

§ 4. PROVISIONS RELATING TO THE NATIONAL CREDIT INSTITUTION FOR CO-OPERATION

The National Credit Institution for Co-operation (Rome) was founded by the Royal Decree of 15 August 1913, No. 1,140, for the purpose of providing credit for legally constituted co-operative societies of all kinds and their consortia, also legally constituted (1). The Bank of Italy, the National Fund for Workmen's Old Age and Invalidity Pensions (now called the National Social Insurance Fund), the Credit Institution for Co-opera-

(1) The Institution is governed by the provisions of the Law of 7 April 1921, No. 1,073, and by rules approved by Royal Decree of 19 February 1922, No. 253, replacing those approved by the Royal Decree of 15 August 1913, No. 1,140, the Lieutenantcy Decree of 7 March 1918, and the Royal Decree of 4 March 1920.

tive Societies (Milan) and the principal ordinary savings banks all contributed to form the foundation capital of 7,750,000 lias. To the original contributors were subsequently added the National Fund for the Insurance of Workmen against Accidents during their Work, the Bank of Naples, the Bank of Sicily and several post office banks. At the end of 1920 the capital reached a total of 20,840,000 lias, together with a reserve fund of about 500,000 lias.

In recent years the need of credit felt by the Italian co-operative societies has steadily increased, as they have assumed an ever-growing importance in the national economy. Various measures were therefore taken to increase the means at the disposal of the Institution and place it in a position better to accomplish its task.

By the Decree of 21 July 1919, No. 1,159, the Treasury was authorized to make advances to the Credit Institution at 4 per cent. interest up to a total of 30,000,000 lias, to enable it to supply to co-operative distributive societies and their consortia, as well as to the semi-official independently-managed distributive associations (*enti autonomi di consumo di carattere pubblico*) to acquire and to preserve articles of primary necessity and to distribute them to the consumer at moderate prices. By the same decree a sum of 20,000,000 lias was set aside for loans to co-operative distributive societies for the installation of plant for the production, manipulation and distribution of food stuffs, but this fund was not employed for its original purpose and was afterwards, by the Decree of 7 November 1920, No. 1,599, likewise allocated to the granting of loans for the purchase of articles of primary necessity.

Speaking of the measures taken in favour of the co-operative societies for production and labour, we have mentioned the Decree of 3 June 1920, No. 859, by which the Federal Credit Institution for the Revival of Venetia was authorized to grant to the National Credit Institution loans up to a total of 30,000,000 lias to facilitate in the Venetian provinces the work of reconstructing and repairing the property damaged by the War, as well as the Law of 26 September 1920, No. 1,195, which authorized the banks of emission to rediscount for the National Credit Institution, bills to a total amount of 100,000,000 lias drawn by co-operative societies for production and labour and their consortia and guaranteed by the assignment of orders to pay issued by the public administration, with which they had entered into contracts, in accordance with the terms of the Law of 25 June 1909, No. 422.

By the Law of 7 April 1921, No. 456, the capital of the National Credit Institution was increased by 200,000,000 lias by payments to be made to it by the State.

Other measures related to the constitution of the Institution. Thus by the Decree of 23 March 1919, No. 455, an independently managed section was established for supplying credit for building purposes, with a foundation capital of 30,500,000 lias.

This Section finances the co-operative building societies and the independent housing institutions in two ways — by means of loans which

serve to supply, during the course of the construction, the capital necessary for the work and by means of mortgage loans which are granted when the work is completed. Loans of the first kind are made out of the foundation capital to old buildings; the mortgage loans, which are repayable in 50 years, must have recourse to the issue of bonds, of the value of 500 liras each, guaranteed by first mortgage, which it is authorized to raise to the amount of eight times its owned capital.

Subsequently, by the Decree-Law of 22 April 1920, No. 516, a new independently managed Section was created for land and agricultural credit, for the purpose, as we have had occasion to note when dealing with the measures taken in favour of the agricultural labourers' societies, of counteracting the tendency shown by these societies not only to rent land, but also to purchase it. This tendency showed the necessity of more systematic effort on the part of the National Credit Institution to aid this form of co-operation, which had shown itself to be an effective instrument for intensifying production.

Including the two sums allocated for the Building Section and the Agricultural Section, the capital of the National Credit Institution now exceeds 300,000,000 liras and this capital enables it to carry out a programme of financial assistance which responds more fully to the growing needs of the co-operative movement.

By the Decree of 31 July 1921, the composition of the Committee of Management of the Institution was modified. It will include 15 members, of whom five will be nominated from amongst their own officials by the Ministries of Labour, of Industry and Commerce, and of Agriculture (one for each Ministry) and by the Ministry of the Treasury (two members), five will be nominated by the institutions which have contributed to the capital, and five will be representatives of the co-operative societies.

The Institution in the seven years that it has been at work has steadily increased its business. It has opened branches and agencies in the principal centres of the co-operative movement and has helped to encourage the spread of co-operation in Southern Italy.

Credit is supplied by the Institution to every kind of co-operative society, but particularly to co-operative societies for production and labour, co-operative distributive societies and co-operative land-holding societies.

To co-operative societies for production and labour credit is granted principally in the form of advances secured by the assignment of orders to pay issued by public administrations with the guarantees and according to the rules laid down by the Laws of 25 June 1909, No. 422, and 26 September 1920, No. 1,495.

Credit is granted to co-operative distributive societies by means of bills guaranteed by the right to levy distress on the goods belonging to them, in accordance with the provisions of the Decrees of 26 May 1918, No. 723, and 24 July 1919, No. 1,459.

To co-operative societies for the construction of cheap houses mortgage loans are granted at preferential rates of interest, exempt from the tax

on personal property. The State also contributes towards the payment of the interest (Consolidating Law of 30 November 1919, No. 2,318).

To co-operative land-holding societies loans secured by the right to levy distress on ungathered fruit and on live and dead stock are granted for supplying working capital (Decrees of 8 October 1916, No. 1,336, and 26 July 1917, No. 1,269) and mortgage loans for the purchase of land, for the enfranchisement of land from dues and charges, and for land improvement (Decrees of 22 April 1920, No. 516, and Regulations of 14 November 1920, No. 1,793).

Besides the transactions above described, the Institution rediscounts the bills discounted by other co-operative credit institutions or by other institutions which make advances to co-operative societies, grants loans secured by the deposit of securities and the assignment of credits, and, in exceptional cases may grant direct loans to co-operative societies for which bills have already been discounted and which have worked satisfactorily for at least three years.

The National Credit Institution accepts deposit on current account or in exchange for interest-bearing bonds. The deposits are not used for the ordinary transactions, but are invested in State securities, in securities guaranteed by the State or in land bonds.

Having thus indicated the measures taken regarding the National Credit Institution, we give some statistics of its work between 1914 and 1920.

For all transactions with the Institution, the co-operative societies must draw bills which fall due at the time when the transaction is to be closed. The following table indicates the total number and aggregate amount of such bills discounted in each year.

TABLE I. — *Number and Amount of the Bills Discounted in each year from 1914 to 1920.*

Year	Number of bills discounted	Amount of bills discounted liras
1914	5,091	15,177,601
1915	12,582	42,802,768
1916	14,441	56,885,256
1917	15,924	89,084,564
1918	18,643	162,036,915
1919	25,583	310,070,993
1920	51,271	885,000,599

The amount of bills discounted in 1920 (885,000,599 liras) was thus distributed amongst the different parts of Italy: Northern Italy,

627,614,894 liras; Central Italy, 192,701,773 liras; Southern Italy, 64,683,932 liras.

The bills in hand at the end of the year 1920 amounted to 357,175,156 liras.

The total amount of the bills discounted in the seven years was 1,561,367,698 liras.

The transactions of the Institution are distributed amongst the different kinds of co-operative society in the manner shown in the following table.

TABLE II. — *Distribution of the Transactions amongst the Different Kinds of Co-operative Society.*

Year	Co-operative societies for production and labour and their consortia	Agricultural co-operative societies and their consortia	Co-operative distributive societies and independently managed distributive associations	Co-operative credit banks and intermediary institutions	Miscellaneous co-operative societies
1914	10,371,933	338,220	148,517	4,519,722	98,992
1915	31,102,452	1,314,799	1,256,737	5,400,085	3,128,695
1916 . . .	43,150,140	2,263,849	1,811,416	4,824,360	4,805,490
1917 . . .	65,721,105	4,380,296	12,869,022	4,726,136	1,387,704
1918	99,158,767	15,423,402	39,855,025	5,932,786	1,366,935
1919	147,693,095	41,869,527	105,158,692	3,402,292	8,966,225
1920 (1) .	428,299,147	132,228,600	230,654,332	46,820,090	10,783,734

(1) In 1920 transactions were also carried out with co-operative building societies and institutions for the construction of cheap dwellings to a total of 36,214,694 liras.

At the end of 1920 the number of societies which had received loans was 5,864 which were thus classified: 3,180 co-operative distributive societies; 1,621 co-operative societies for production and labour; 842 co-operative land-holding societies, and 221 miscellaneous co-operative societies.

These figures give an idea of the extent to which the Institution has developed in a few years and of the importance of the work accomplished.

It may be affirmed that if the Italian co-operative movement has been able to pass safely through so difficult a period, this is due in large part to the work of the National Credit Institution which with foresight and courage supported the soundest of the co-operative institutions in their efforts to maintain themselves in working order. This is particularly the case in regard to the co-operative societies for production and labour which the Institution supported by raising the limit of the loans granted so as to enable them to face the increased cost of labour and of materials, by providing with technical direction and administrative aid those co-op-

erative office which had intended what is now the National Office for the organization of the agricultural co-operatives, then it was decided to leave the work to the care of the War Office.

The Institute had also endeavored to direct the work from a technical point of view. The co-operative societies. The efforts which have been made in this direction have been various in kind, such as the appointment of inspectors in the establishment of offices for the inspection of co-operative societies with a view to supplying to the societies technical advice and assistance in regard to management and book-keeping, the formation of consortia and federations for the purpose of co-ordinating and completing the work of individual co-operative societies in different regions, and the organization of courses of instruction for imparting to co-operators the fundamental notions of book-keeping and of the laws relating to co-operation. We may instance the Inspection Office for Co-operative Land-holding Societies of Bologna which assisted the societies in the choice of land to rent or to buy, in the purchase of stock and equipment and in deciding upon the crops to cultivate, and which laid over the employment of the credits granted by the National Credit Institution. It was this Office in turn which formed the National Federation of Agricultural Co-operative Societies which now carries on this same work.

Two other Agricultural Inspection Offices with similar objects were formed at Venice and at Mantua and the Office for the Inspection of the *Universita' di Bari* of L'atium was formed in Rome.

A special office was also established in Rome for the supervision of co-operative societies and distributive associations (*enti di consumo*).

There was also formed, with headquarters at Naples, an office for the promotion of co-operation in Southern Italy. This is intended to carry out a great propaganda in favour of the principles and practice of co-operation.

The National Credit Institution also facilitated the carrying out of the programme of the *Cassa Nazionale per i Combattenti*.

§ 5 PROVISIONS IN FAVOUR OF THE CO-OPERATIVE DAIRY SOCIETIES

The co-operative dairy societies, which represent one of the most interesting and most widely diffused forms of agricultural co-operation in Italy suffered severely during the War in the invaded districts, where many of them disappeared.

From inquiries made it appears, in fact, that before the invasion there were 614 co-operative dairies in Venetia, of which 331 were in the province of Udine, 151 in the province of Belluno, 119 in the province of Vicenza and 13 in the province of Treviso. In the province of Udine only 22 dairies, all of them belonging to the mountainous districts, were working in 1919, and those only on a greatly reduced scale. In the province of Belluno very few were still working in that year. In the province of Vicenza 36 co-operative dairies were destroyed and of those which remained some were

not able to carry on working. On the co-operative farms in the province of Treviso no one was able to carry on its work.

But the stock breeding consortia, formed to facilitate the reconstitution of the herds of cattle in the liberated districts (Law number 866 of 8 May 1919 No 866) were able to increase the number of head of cattle but it became more and more urgently necessary to provide also for the reorganization of the co-operative dairy societies.

The Ministry of the Liberated Districts accordingly decided to take suitable steps for this purpose in order to supplement the work that, in the exercise of its general functions and in virtue of the Law of 6 July 1912, No 5,12 the Ministry of Agriculture was carrying on. In agreement, therefore with the latter Ministry a Decree was issued on 26 January 1920 whereby in the financial year 1919-20 the sum of 200,000 lias (of which 150,000 lias were contributed by the Ministry of the Liberated Districts and 50,000 lias by the Ministry of Agriculture) were allocated for subsidies to the co-operative dairy societies of the liberated Venetian provinces to put them in a position to resume their normal working, independently of the payment of compensation for the damage which the dunes themselves had suffered. The subsidy which could not exceed 3,000 lias, was granted for the purpose of adapting or restoring premises for use as cheese-factories or for providing apparatus and machinery for cheese-making: it was given to societies which (a) were able to start working on economic lines and which could rely for the handling of the milk upon a sufficient nucleus of members with an adequate number of dairy cattle, or (b) were in such a position as to be able, with the help of the subsidy and with their own means, to reconstruct, adapt and repair their cheese-factories and supply them with the apparatus essential for the manufacture of dairy products.

To obtain the subsidy the co-operative dairy society had to present the following documents: (a) a copy of the rules of the society, showing that it was organized for the joint manipulation and sale of the produce, except such part of it as the members needed for their own families, (b) a list of the members showing the number of cows which each member possessed and of which the milk was handled in the co-operative cheese-factory, (c) an estimate of the first year's working, showing the quantity of milk which could be handled in the factory and of butter and cheese which could be produced, (d) an estimate of the work to be carried out and a list, with prices of the apparatus and machinery to be acquired.

To decide upon the amount of the subsidies to be given in each case a special committee was formed consisting of three members, of whom two were nominated by the Ministry of the Liberated Districts and one by the Ministry of Agriculture.

Table III (page 172) shows the dairy societies which had received grants from the funds allocated for the purpose by the Decree mentioned up to the end of February 1921.

The sum allocated having been exhausted and many dairy societies not having been able to benefit by it, the Ministry for the Liberated Districts

TABLE III. — *Co-operative Dairy Societies Subsidized under the Decree of 26 January 1920.*

Province	Number of dairy societies existing before the invasion	Number of dairy societies resuming normal working	Number of dairy societies receiving grants	Amount of grant contributed by the Ministry of Liberated Districts	Amount of grant contributed by the Ministry of Agriculture
				lire	lire
Belluno	151	100	118	37,000	44,450
Treviso	13	6	4	3,700	500
Udine	331	120	138	105,600	5,050
Venice . . .	—	—	—	—	—
Vicenza . .	110	83	4	3,700	—
Total . . .	614	309	264	150,000	50,000

by a Decree dated 3 February 1921 allocated a further sum of 100,000 liras to be granted as subsidies in the financial year 1920-21 to the co-operative dairy societies formed prior to the war that had applied for help to resume their normal working. The same rules were followed in granting these subsidies as in granting the previous ones. The dairy societies subsidized are shown in the following table:

TABLE IV. — *Co-operative Dairy Societies Subsidized under the Decree of 3 February 1921.*

Province	Number of dairy societies receiving grants	Amount of grant
		lire
Belluno	84	35,100
Treviso	1	2,000
Udine	76	53,700
Venice	1	2,000
Vicenza	11	7,200
Total	173	100,000

Thanks to the encouragement given by the Government and to the enterprise of the interested persons themselves, as well to the active aid rendered by the local live stock and cheese-making offices, the co-operative dairy societies are in a fair way to regain their former

prosperity. It may be added that in the process of reorganization they have introduced considerable improvements in the plant and in the management, which gives ground for the hope that in these districts the milk industry will soon not only have been revived but will have become more productive and more profitable than before.

§ 6. MEASURES IN FAVOUR OF MUTUAL INSURANCE SOCIETIES.

The working of mutual insurance societies in Italy was governed for a long time by the Law of 7 July 1907, No. 526. This contained provisions in favour of "small agricultural co-operative societies and small agricultural mutual insurance societies," and was the earliest legislation on the subject. It was proposed to simplify some legal formalities which experience had shown to be superfluous and troublesome for the smaller societies, to give them a more favourable fiscal treatment and to extend to the small mutual insurance societies the advantages conferred upon the small co-operative societies. The facilities granted consisted, in fact, in exemption from the twofold obligation, laid down by the Commercial Code, to publish notices relating to the formation of the society in newspapers specially named in the memorandum of association and in the *Bollettino Ufficiale delle Società per Azioni*, and in exemption for ten years from the stamp and registration taxes for societies which had assumed risks not exceeding 300,000 liras.

However this law did not fulfil all the purposes for which it was enacted, and, in view of the necessity, which has been strongly felt in recent years, of aiding both directly and indirectly the nationaleconomy, it was thought desirable to take further steps for promoting and encouraging the formation of mutual insurance societies which by guaranteeing the farmers against damage either to the property employed in production or to the resulting produce might act as a powerful aid to national production.

The measures taken in this matter, which are of capital importance for the development of agricultural insurance, are contained in the Decree-Law of 2 September 1919, No. 1,759, and in the Royal Decree of 26 February 1920, No. 271, which lays down the regulations for its application.

The agricultural mutual insurance societies, to benefit by the facilities afforded by the Decree mentioned and by the regulations for its application, must fulfil the following conditions:

(a) They must have as their object the giving of compensation for the damage resulting from agricultural risks. The risks which are considered to be agricultural risks are the risks of any kind whatever affecting the land, buildings, fixtures, moveable property and stock employed in carrying on agriculture (including gardening and market gardening) and forestry, and the industries auxiliary, complementary or accessory to agriculture or forestry, when they are pursued on account of and in the interest of a farm or a forestry undertaking and on the land

itself. Risks of any kind to the fruits or products of the industries named, in so far as they belong to the owner or manager of the farm or forestry undertaking are also considered agricultural risks.

(b) They must act within a strictly limited area of operations, in area, that is, limited to the commune or fraction of a commune in which the society has its headquarters, or even to several adjacent communes having a population of not more than 5,000 inhabitants. In the larger communes divided into sections (*mandamenti*) the area of operations of the society must be limited to a section. The limited area of operations renders it possible for the members to keep a watch on one another and avoids the necessity of creating a cumbersome and costly system of management.

(c) They must fix the total amount of the annual contribution. This must not exceed 30,000 liras for each branch of insurance nor 100,000 liras in the aggregate for all the branches of insurance carried on. The Ministry may in special cases authorize a society to exceed the limit of 30,000 liras for a particular branch of insurance, but the limit of 100,000 liras for all branches cannot be exceeded.

(d) They must have no paid officers, except the secretary and cashier.

(e) They must have no speculative objects in their work.

The mutual insurance societies must in their rules include amongst their objects everything which may be desirable to guard against or diminish the risks insured. In particular, those which carry on live stock insurance must lay down that their object is also the inspection and veterinary treatment of the animals and the sanitary improvement of stables and cowsheds and their surroundings.

The mutual insurance societies which fulfil the conditions indicated are incorporated by a Decree of the Prefect, issued after hearing the opinion of a Provincial Committee nominated by the competent Ministry; of this Committee the Director of Itinerant Agricultural Instruction is a member. To obtain such a decree, it is sufficient that the promoters of the mutual insurance societies should make application to the prefect, attaching a copy of the draft rules agreed by all the initial members.

The advantage resulting from this simple and rapid procedure for the formation of the mutual insurance societies is obvious, since they are societies with a strictly local area of operations and are formed for the most part by small proprietors or small tenant farmers and in view of their unpretentious nature it is desirable that there should be as few formalities as possible to go through to obtain incorporation.

The documents relating to the formation of the societies and to the admission and withdrawal of members are not subject to registration or stamp duty. The same exemption applies to all documents relating to the transactions of the societies. All the sums which the societies allocate annually to their reserve funds are also exempt from the tax on personal property.

The provisions relating to the business organization of the mutual

insurance societies are particularly interesting. They must keep each branch of insurance distinct and the rules besides fixing a general entrance fee, must fix a special entrance fee for each branch in which the member intend to take out insurance. The rules must fix the amount of these entrance fees, and provide for the formation of reserve funds for each branch and the conditions upon which sums may be withdrawn from them to make good losses on the year's working. The general reserve fund is kept distinct from the special reserve funds. The general reserve fund serves to provide for depreciations and to make good losses on the general work of the society and on the carrying out of objects other than insurance contemplated by its rules. It is made up of the general entrance fees and of 10 per cent. of the special reserve funds. The special reserve funds are formed by the special entrance fees, by a percentage of the profits on each branch and by the interest accruing on the funds themselves. To the special reserves of the hail insurance branch and the live stock insurance branch at least 50 per cent. of the profits on those branches must be allocated each year. To other special reserve funds, at least 20 per cent. of the profits of the respective branches must be allocated. These percentages of the profits must continue to be allocated to the reserve funds until they have reached three times the contributions of the previous year in the case of the reserves of the hail and live stock branches and twice the contributions in the case of the other special reserves. At least half the reserve funds must be invested in State securities or securities guaranteed by the State and the remainder can be invested in the shares of local credit institutions, preferably institutions which supply credit for agricultural purposes.

The members must undertake to remain members for at least one year and insure all the property that they possess that is subject to the risk in question. The member who has insured his live stock must notify to the society every illness and every accident affecting an insured animal and from the moment of the notification the animal is considered to be the property of the society, which decides whether it is to be treated or slaughtered. The member whose crops have been insured against hail must immediately notify to the society any damage which may have occurred and suggest any measures which can be taken to prevent an aggravation of the damage. Lastly, the member insured against fire must immediately notify any fire which has occurred, its supposed cause and the amount and nature of the damage, and must show that he has used every means at his disposal to reduce the damage, direct or indirect.

The premiums are payable annually in advance and are proportionate to the values assured. In this connection it may be noted that ordinarily mutual insurance societies are not recognized which are based on a simple distribution of the losses, without payment in advance of fixed premiums proportionate to the values assured.

With regard to claims, the rules must fix the proportion in which compensation is to be paid; but it must not exceed 80 per cent. of the

losses in the case of fire or live stock insurance or 90 per cent. in other forms of insurance.

The mutual insurance societies provide for the reinsurance of their risks and for the protection of their interests by grouping themselves in provincial federations which, in their turn, reinsure with the National Insurance Institution or with private companies. Reinsurance is compulsory in the case of hail insurance and in this branch the societies must themselves carry not less than 10 per cent. nor more than 40 per cent. of the risks assumed.

In other branches reinsurance is optional but when it is effected, the society must itself carry at least 30 per cent. of the risks assumed in the case of live stock insurance and at least 50 per cent. of the risks in other branches. However, in the case of live stock insurance, the societies may reinsure 90 per cent. of the risks of mortality due to epidemics, themselves carrying the remaining 10 per cent. The National Insurance Institution has undertaken since 15 December 1921 the reinsurance of the agricultural mutual insurance societies complying with the regulations described, assuming for the live stock insurance societies even risks from epidemics. It must be noted that the Institution itself was authorized by the Lieutenantcy Decree of 14 April 1918, No. 565, to undertake during the War, on account of and in the interest of the State, reinsurance of any kind, including the reinsurance of risks assumed by mutual live stock insurance societies.

The Decree of 2 September 1919 regulates and encourages the formation of federations. It provides that the mutual insurance societies which, for reasons dependent on their own will, do not become affiliated to a federation shall not enjoy the privileges conferred by the law nor be able to reinsure the risks they have assumed with the National Insurance Institution.

To form a federation of mutual insurance societies or a reinsurance society at least ten mutual societies are required as initial members. Besides reinsurance, the federations have the following objects: (a) to inspect the affiliated mutual societies with a view to ensuring the observance of all the rules laid down in laws, regulations, rules and bye-laws which govern their working; (b) to see that their accounts are properly kept and that no irregularities occur in their management; (c) to consolidate the work of the societies by advice, instructions, and rules for their regular working and for supplementing their work, particularly in regard to the treatment of animals for the prevention of disease.

The federations are under the supervision of the Ministry and if they work in conformity with the Decree they enjoy the same privileges as the agricultural mutual insurance societies.

The last part of the regulations relates to the work of the Ministry and to the subsidies which it can grant. To facilitate the formation, equipment and working of agricultural mutual insurance societies an initial sum of 200,000 liras has been set aside. The Ministry may take action for the promotion of agricultural insurance in any of the following ways: (a) by directly promoting the formation of mutual insurance societies and

of federations or by giving assistance in technical matters or in questions concerning the management of societies to local efforts to form societies when, owing to the special circumstances of the local agricultural economy, insurance of this kind is considered necessary or desirable ; (b) by providing the mutual insurance societies or federations with all that is required for their management or for keeping their accounts ; (c) by promoting competitions. It can provide for the carrying out of this programme either directly or through the National Agricultural Mutual Insurance Institution — the propagandist body of this movement, to which are due most of the efforts which have been made in this field of action in Italy — or through the prefects, the mayors, or the itinerant agricultural instructors. In order to promote the formation of mutual insurance societies or of federations the Ministry may send its own representatives to study on the spot the conditions of insurance and of agricultural risks and to stimulate local efforts. It can also invite the interested parties or the promoters to attend conferences or meetings. The Ministry may also arrange for the compilation of special propagandist publications to illustrate the methods of management and technical organization of agricultural insurance societies according to the various local conditions and to the special nature of the risks to be insured. It may also grant gratuitously to the mutual insurance societies and to the federations, either at the beginning of their work or subsequently, the books, registers and printed forms necessary for carrying on their business. The Ministry must also assist in the solution of technical problems or problems connected with the management of the societies or federations and express its opinion, if requested to do so, on all questions which may arise between the societies and their members or between the federations and the societies in regard to the interpretation of the rules or the terms of insurance and the reinsurance contracts.

The federations may be given subsidies by the Ministry in any of the following circumstances : (a) when they have lost, for reasons not resulting from bad management, so large a part of the capital as to threaten the existence of the society ; (b) when they have closed the accounts of the last year or years with a loss or have only been able to avoid loss by drawing upon the reserves to an unusually large extent ; (c) when they have extended or propose to extend their work to other branches of insurance which are authorized by the Decree ; (d) if they are just beginning business.

In no case, however, can a subsidy be given unless it is shown that the management expenses of the society or federation are kept within reasonable limits having regard to its size and the objects pursued.

The rules above described evidently aim at organizing the societies in question on a sound technical basis and with proper methods of working. They have produced beneficial results, having brought about a marked revival in this field, as is evidenced by the growing number of new societies (about 300 together with 10 provincial federations) and by the reorganization of the societies previously existing in conformity with the principles laid down in the Decree-Law. To a large extent, therefore, the general

and systematic development of agricultural mutual insurance which is now taking place in Italy is due to this Decree.

To complete our statement of the measures taken in Italy during the War period to safeguard the national agricultural wealth, we must also mention the Decree-Law of 15 April 1920, No. 577, which imposed a fixed tax of five Liras on every head of cattle slaughtered, the sums collected being devoted to increasing and improving the live stock of the country. Of the nine tenths of the sums collected which is paid over to the State, one third is devoted to the promotion by suitable means of mutual insurance against mortality amongst live stock and against risks in slaughtering, particularly by the formation of private mutual insurance societies or the municipal insurance of butchers' beasts, as well as their grouping in federations for the purpose of paying compensation for the losses resulting from the total or partial sequestration of the meat for sanitary reasons.

§ 7. THE DEVELOPMENT OF CO-OPERATION FROM 1914 TO 1920.

The State-aid of various kinds which we have described and the new economic necessities resulting from the War, which we have also noted, explain the great development of the co-operative movement in Italy in recent years. A few figures may be given to illustrate this development.

According to the *Annuario Statistico Italiano*, the legally constituted co-operative societies, exclusive of those of which the principal business was to supply credit, numbered 7,429 on 30 June 1914. Amongst these the agricultural societies and vine-growers' societies numbered 1,242 in all.

It also appears from the *Annuario* that the legally constituted co-operative societies numbered 8,251 at the end of 1915, 8,421 at the end of 1916 and 8,764 at the end of 1917 and amongst these the agricultural societies and vine-growers' societies numbered respectively 1,371, 1,386 and 1,386.

Statistics have since been published by the Ministry of Labour and of Social Insurance (1) from which it appears that on 31 March 1921 the legally constituted co-operative societies numbered 19,510. In the few preceding months there had been a particularly rapid increase as on 15 July 1920 such societies only numbered 15,099. In a little less than eight months no fewer than 4,411 new societies had been formed, an increase of 29 per cent. The societies are distributed amongst the different classes as shown in Table V (page 179).

The most numerous class is that of the co-operative societies for production and labour, which numbered 7,643. The co-operative distributive societies had also greatly increased, the number having risen from 4,632 to 6,481. The third place is occupied by the agricultural co-operative societies, which numbered 2,239; the fourth place by the credit soc-

(1) See the *Bollettino del Lavoro e della Previdenza Sociale*, No. 5. Rome, May 1921. Ministry of Labour and Social Insurance.

TABLE V. — *Legally Constituted Co-operative Societies on 15 July 1920 and on 31 March 1921 divided according to Regions and to Classes of Society*

Region	Distribu- tive	Produc- tion and Consum	Credit	Insurance	Miscell- aneous	Agricultu- ral (Law of 7 July 1907) (1)	Grand total
Piedmont	310	251	127	73	63	291	1,144
Liguria	102	310	13	3	55	18	600
Lombardy	1,178	782	265	21	160	179	2,525
Venetia	605	830	132	—	09	195	1,850
Emilia	90	1,271	170	5	07	581	2,653
Tuscany	600	133	101	4	51	89	1,297
The Marche	201	170	77	—	27	64	538
Umbria	127	73	21	—	8	25	257
Latium	57	001	135	7	88	96	1,117
Abruzzi	89	50	18	2	2	88	270
Campania	180	270	121	7	33	115	841
Apulia	00	207	46	2	12	45	501
Basilicata	18	32	17	—	1	6	74
Calabria	112	117	63	—	1	12	305
Sicily	148	321	230	4	22	211	936
Sardinia	26	45	17	2	1	94	185
Italy (15 July 1920)	4,632	5,802	1,510	130	690	2,239	15,099
Co-operative societies constituted between 16 July 1920 and 31 March 1921 . .	1,849	1,751	18	3	790	—	1,411
Total (31 March 1921)	6,481	7,643	1,534	133	1,480	2,239	19,510

(1) The Law of 7 July 1907, No 526, contains provisions in favour of all co-operative societies the business of which is connected with agriculture, to whatever branch of work they may devote themselves provided that the share capital does not exceed 30,000 liras.

ities, numbering 1,534, followed closely by the mixed and miscellaneous societies, numbering 1,480.

As regards their geographical distribution, the co-operative societies are most numerous in the regions of the North of Italy. Emilia stands first, followed by Lombardy, Venetia, Tuscany. These, in turn, are followed by Piedmont, Latium and Sicily. The last-named contains the largest number of co-operative credit societies; Emilia the largest number

of agricultural co-operative societies and co-operative labour societies, and Lombardy the largest number of co-operative distributive societies and miscellaneous societies.

The figures which we have just given are not complete, partly because they only relate to the legally constituted co-operative societies, partly because at the present time when the national economy is adjusting itself to the new conditions it is extremely difficult to compile accurate and complete statistics. They will serve, however, to give an idea of the importance attained in Italy by this form of economic organization and to show that the many measures which have been taken during the War period to encourage it have not remained without effect. G. C.

MISCELLANEOUS INFORMATION RELATING TO CO-OPERATION AND ASSOCIATION

ALGERIA.

1. CO-OPERATIVE AGRICULTURAL CREDIT IN 1921. — GOUVERNEMENT GÉNÉRAL DE L'ALGÉRIE: VIE ÉCONOMIQUE DE L'ALGÉRIE EN 1920 ET 1921. Algiers, 1921.

The question of co-operative agricultural credit has frequently engaged the attention of the Governor-general and his council, on occasions when they have been anxious to render assistance to the small farmers of the colony, who, in consequence of an exceptionally bad year, have been deprived of the necessary means for carrying on farming. More especially with a view to giving the farmers the opportunity of buying the seed wanted for the land under cultivation, the Government has decided to lend its financial support to the regional co-operative agricultural credit banks and an advance of 2,226,800 francs has been voted.

This loan, which is taken out of the payments due from the Bank of Algeria, has been apportioned among the different regional banks of the colony under the following conditions:

1. The advances are only to be employed for loans to farmers for the purchase of seed, and the banks must demand guarantees of repayment at the next harvest.

2. The advances must be repaid to the colony at latest by 31 December 1921.

3. In accordance with Article 3 of the Law of 3 July 1901, the total of advances made to regional banks cannot exceed four times the total of the capital paid up in cash.

The Law of 5 April 1921 relating to appropriation of the supplementary payments of the Bank of Algeria as provided in the Law of 29 Dec-

ember 1918 will assure to short term agricultural credit very important resources amounting to a total of 15,982,000 francs, which will allow of supplying needs that are rapidly on the increase.

The same Law further assigns special resources to collective credit, to co-operative societies and to individual long term credit.

On the other hand the central administration has approached the Bank of Algeria and the principal financial houses of the colony with a view to inducing them to discount agricultural bills more freely, and in particular bills of the regional co-operative agricultural credit banks. As a result of these negotiations, facilities have been granted, such as the opening of a credit of 4 million francs with a view to the harvesting, in favour of two regional banks of Algeria which have given mutual guarantees. Other facilities have been promised in a proportion compatible with the difficulties of the present situation. M. B.

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2. CO-OPERATIVE CREDIT FOR THE PURCHASE OF SEEDS IN THE DEPARTMENT OF CONSTANTINE. — *La Voix des Colons*. Algiers, 1 January 1922.

In consequence of the disastrous harvest of 1920, a number of farmers in the department of Constantine, which depends almost entirely on the cereal crop, were confronted with the alarming prospect of being unable to sow, having neither seeds nor credit. The situation was saved by the prompt action of a group of farmers who from the management of co-operative institutions were thoroughly conversant with the practical application of co-operative principles.

Two problems presented themselves and had to be solved: to find money, and to apportion it.

To find money was no easy matter. There was a general crisis in credit business: bills usually unquestioned were refused or only limited discount was given; to ask banks for advances for the needy cultivators at such a moment might well seem an absurdity. It was, however, to the banks that application was made, and with complete success because it was possible to offer substantial guarantees.

All banks with offices at Constantine, namely, *Crédit Lyonnais*, *Crédit Foncier*, *Société Générale*, *Compagnie Algérienne*, were approached and their concurrence obtained. The request made to them was that they should open a credit at the Regional Bank of Constantine for 3,500,000 francs, guaranteed by that bank and by individual promissory notes for an equivalent sum, these to be given under the signature of the farmers of most standing in the department. The whole operation centred round the signing of these promissory notes. An appeal to the sense of joint responsibility felt by all farmers was issued by the Constantine General Federation of Agriculturists. This appeal met with a response, and in a few days 137 prominent farmers of the district signed 378 promissory notes of 10,000 francs with date of expiry 30 September 1921, representing a total guar-

antee of 3,780,000 francs. These notes were handed to the Regional Bank at Constantine, which thus had at its disposal a guarantee fund more than sufficient to guarantee its bank loans within the limits of anticipated requirements.

The money was found. To apportion it fairly was the remaining task, while guarding the Regional Bank and the sureties against risk of loss. These objects were very readily attained by bringing into the field the guarantee of the communes, to whom the apportionment was entrusted while making them liable. It was understood that in order to guarantee themselves the commune would demand from each borrower a solvent surety. On the other hand, the General Council voted a sum of 900,000 francs with a view to covering any possible losses. Finally, the Colony in its turn stepped in to take on itself the general expenses of the undertaking and a third of what loss there might be.

The loans granted amounted to a total of 3,246,814.80 francs enabling the farmers to obtain delivery of 32,000 tons of seed wheat and seed barley.

This successful result was directly due to the action of the sureties in giving their signatures and their credit. Their satisfaction cannot be tinged with any regret, as the whole business has been put through as far as they are concerned without their incurring the smallest loss. In fact on the falling due of the promissory notes on 30 September 1921, the communes liable for the loans were called on by the Prefect of the department to reimburse the total amount. They complied, and the Regional Bank after reimbursing in its turn the banks which had opened credits in its favour, released the sureties from their guarantees, and they regained possession of the whole sum they had engaged to pay. The communes, on their side, have been reimbursed by the borrowers in respect of the larger part of the sums lent. Postponement of payments has been allowed in cases where there are justifiable reasons for the delay. If some loans are entered, when the accounts are finally made up, as irrecoverable, the loss will be shared between the communes, the department and the Colony.

M. B.

BULGARIA

RECENT STATISTICS OF AGRICULTURAL CO-OPERATION. — *L'Echo de Bulgarie*, Sofia, 2 December 1921.

A recent law having conferred on the Agricultural Bank of Bulgaria the right of directing, granting credit to and supervising the various co-operative agricultural societies of the country, the Central Co-operative Bank has submitted to that establishment the accounts of all the co-operative societies in which three quarters of the members are engaged in agriculture or in one of its branches. Following on this, the Agricultural Bank of Bulgaria has had statistics drawn up of the co-operative societies in operation on 30 June 1921, with the following results:

On 30 June 1921, there were in the territory of Bulgaria, as delimited

by the recent treaty, about 1,862 co-operative associations established in 1,471 different localities. According to the last census there are 4,634 villages and towns in Bulgaria, so that it follows that 34 per cent of these centres of population possess co-operative societies. The population of the kingdom being 4,860,311 persons, there is one co-operative association for 2,604 persons. More exactly, one co-operative credit society may be reckoned to every 4,520 persons, one co-operative distributive society to every 9,500 persons, and one co-operative productive society to every 23,000 persons.

The 1,862 co-operative societies may be classified according to their aim as follows:

Credit Societies and Popular Banks	1,077
Co-operative Productive Societies	212
Co-operative Distributive Societies	512
Syndicates	61
Total	1,862

As we see, the co-operative credit societies stand first by a considerable majority. We may note, however, that in view of the general shortage, these societies were obliged in nearly every case to undertake the supply of articles of prime necessity: salt, petrol, sugar, soap, cereals, agricultural implements, etc. They have rendered very important services in the struggle against the village usurers, whom they have practically rendered harmless.

The following table shows the disastrous influence which first the Balkan war and then the European war had on Bulgarian co-operation.

Progress of Bulgarian Co-operation from 1906 to 1921.

Class	Societies formed before 1906	Societies formed 1906 to 1912	Societies formed 1913 to 1918	Societies formed be- tween Janu- ary 1919 and 30 June 1921	Total
Credit societies and popular banks	117	563	130	267	1,077
Productive societies . . .	3	35	25	149	212
Distributive societies . . .	5	28	36	443	512
Syndicates	—	4	1	56	61
Total	125	630	192	915	1,862

It follows from this table that from 1913 to the end of 1918, only 192 co-operative societies were formed, the majority of which were constituted in the second half of 1918, that is to say after the crisis of production and supply had begun to make itself felt. On the other hand, the number

of the co-operative associations increased rapidly between 1 January 1919, and 30 June 1921; there were in fact 915 formed during that period, or an average of 370 a year, as against an average of 59 a year from 1913 to 1918.

In about 1,304 of the co-operative societies, three quarters of the members carry on agriculture as their principal occupation. The members of the other 588 societies belong to other occupations. On 30 June 1921, 814 societies had contracted loans with the Central Co-operative Bank, which had opened credits in their favour amounting to 83,336,400 leva. Out of these credits, 54,954,413 leva had been utilized. The fact that a considerable balance remains unutilized is to be attributed firstly to the fact that many societies have capital of their own and keep the credits opened in their favour by the Bank as a reserve, and secondly to the fact that in certain societies, the managing staff is not sufficiently experienced to undertake more important operations and contents itself with small operations which do not require large capital.

The Bank has rendered special assistance to the co-operative societies of tobacco planters, by advancing them funds to enable them to improve tobacco cultivation and to render it more intensive, as well as to enable them to develop an export business. On 30 June 1921, these societies had borrowed 11 million leva.

M. B.

CZECHOSLOVAKIA.

I. A BILL, RELATING TO CO-OPERATIVE AGRICULTURAL SOCIETIES AND CHAMBERS OF AGRICULTURE. — *Landwirtschaftliche Genossenschafts Zeitung für Oesterreich und die Nachbarstaaten*, No. 13, Graz, 1 November 1921.

The essential points of this Bill are as follows. An agricultural co-operative society must, as a rule, be coterminous with the administrative area of a political authority of the first degree, that is to say with the territory of a district captaincy. By the provisions of the bill (and therefore compulsorily) the following are members of the co-operative society: (1) owners and tenants: all the owners, persons enjoying the usufruct or tenants of holdings under cultivation and subject to payment of the land-tax, and one hectare or less in extent; (2) agricultural labourers: all wage-earners who do not come under insurance for old age pensions, and the permanent labourers of both sexes, who have reached the age of twenty-one and at the time of the forwarding of the list of members, have been employed on the same farm for a period of not less than six months; (3) those in any way directing agriculture: members of the teaching staff of the agricultural colleges, those employed on agricultural undertakings, veterinary surgeons, etc., provided they are fully twenty-one years of age.

Two Chambers of Agriculture are to be founded in the first instance, one at Prague for Bohemia, and one at Brunn for Moravia and for Silesia. The co-operative societies send their representatives to the general meeting and to the executive committee of the Chambers of Agriculture and these, in turn, send representatives to the general meeting and the executive

committee of the co-operative societies. The Minister of Agriculture is represented in the Chambers of Agriculture by his delegates. He is authorized to dissolve the presidency or the executive committee of a Chamber of Agriculture for any reasons of a serious nature and by consent of the Regional Administrative Council.

The financial means necessary for the establishment of the co-operative agricultural societies and the Chambers of Agriculture, as well as for furnishing them with credit, must be built up by the receipts of the institutions themselves, by State and provincial contributions, and by the compulsory contributions of members of the co-operative societies.

M. T.

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2. THE SITUATION OF THE CENTRAL FEDERATION OF THE GERMAN CO-OPERATIVE AGRICULTURAL SOCIETIES OF BOHEMIA ON 31 DECEMBER 1921. — *Deutsches Landwirtschaftliches Genossenschaftsblatt*, No. 2, Prague, 20 January 1922.

On 31 December 1921, the Central Federation of the German Agricultural Co-operative Societies of Bohemia included 790 co-operative credit societies, 47 co-operative societies for warehousing, purchase, sale and farming, 24 co-operative dairies, 21 co-operative societies for the purchase of machinery and the distribution of electric power, 19 co-operative pasturage societies, 16 co-operative societies for the employment of agricultural machines, 14 societies for the working of mills, 7 flax-cultivation societies, 7 stock-breeding societies, and 24 miscellaneous co-operative societies. There were, too, affiliated to the Central Federation, as members, the German Central Agricultural and Forestry Federation of Bohemia, and the Federation of the German Dairies of Bohemia, Prague.

M. T.

DENMARK

1. THE DANISH CO-OPERATIVE EGG EXPORT SOCIETY SINCE THE WAR (DANSK ANDELÆ AEGEXPORT). — ROCK (W. A.): *Dansk Andelæ Aegexports Virksomhed i 25 aar* (*Working of the Danish Co-operative Egg Export Society, during 25 years*). Copenhagen, 1920. — *Andelæbladet* (*Journal of the Co-operation*), Nos. 25 and 47. Aarhus, 24 June and 25 November 1921. — *STATISTISK AARBOG, 1921* (*Statistical Year-Book, 1921*), Copenhagen, 1921. — KNUDSEN (H. M.): *Landøkonomisk Aarbog for 1921* (*Year-Book of Agricultural Economy, 1921*). — HOWE (F. C.): *Denmark, a Co-operative Commonwealth*. New York, 1921.

During the last five years, the organization of the great Danish Co-operative Egg Export Society has not undergone any changes. It has remained exactly as described in our issue of December 1916. We confine ourselves therefore to giving in this number some figures relating to it, which have been obtained from the publications enumerated above.

The figure of primary importance is that of the number of poultry. Here there has been a marked diminution since during the war. While

up to 1914 the number increased steadily, in 1918 it was reduced to two thirds the pre-war figure. After the armistice there was a resumption of poultry-breeding and the production soon came to exceed by a considerable amount that of 1914, as appears from the following table :

1909.	11,815,783
1914.	15,140,072
1917.	12,287,795
1918.	9,783,692
1919.	12,134,521
1920 (15 July)	14,395,000
1921 (15 July)	about 17,100,000

To the figures of 1920 and 1921 must be added the number of poultry in Schleswig, now a part of Denmark. This number amounts to nearly 600,000.

The statistics for the exports of eggs show a similar curve :

	Imports	Exports	Excess of exports over imports
	In thousand of these (20 eggs)		
1909.	—	—	—
1914.	2,800	20,233	17,433
1917.	1,880	23,431	21,551
1918.	—	22,190	22,190
1919.	—	16,388	16,388
1920.	1	16,923	16,192
1921.	57	21,314	27,257
1921.	—	about 16,400	—

These figures however do not give an exact total as regards the export of eggs, as the share of the *Dansk Andels Aegexport* is not quite easy to state with precision, from the fact that it is the practice of this society to sell its eggs by weight and in consequence to supply the figures in kilogrammes. The average weight of an egg can however be reckoned as 50 grammes, and thus an idea can be formed of the relative importance of the business.

The statistics furnished by the Society to the years already shown are as follows :

	Eggs (1) kg.	Value (2) crowns	Average price per half-kg. öre
1909.	4,318,885	4,569,980	52.91
1914.	4,694,450	5,692,096	60.45
1917.	4,325,721	9,358,002	108.15
1918.	2,774,069	9,581,021	172.70
1919.	3,028,906	13,639,679	224.65
1920.	4,122,466	20,700,596	236.50

(1) Quantities of eggs coming into the warehouses during the year, plus the quantity actually in store on the first day of the year.

(2) Price received for eggs sold and estimated value of those remaining in store at the end of the year.

In 1920, the number of members of the Society was some 50,000 grouped in 540 circles called *Kredse*. The steady increase of these two figures is itself an indication that the egg-producers find it an advantage to belong to the *Dansk Andels Aegexport*. What this advantage amounts to becomes clear from a comparison between the prices offered by the independent exporters and the prices paid by the Society, plus the bonuses that are distributed to the members at the end of the working year. The producers who are members of the *Dansk Andels Aegexport* make about .3 of a crown more per kilogramme of eggs.

To give an idea of the present financial situation of this society, as compared with the situation in 1914, we are displaying the figures of the two years in one table (page 187). In judging of the sums employed, the general fall in the purchasing of money must be taken into account. In the Statistical Year-book of Denmark the price of exported eggs is shown as 7.95 crowns per hundred in 1914 and as 33.50 crowns in 1920.

H. M. R. L.

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2. DANISH CO-OPERATION IN 1920-21 — *Andelsbladet* (*Journal of Co-operation*). Aarhus, 6 January 1922.

The considerable share of co-operation in the business of the country continues to increase. An estimate of it may be formed from some figures which follow, relating to the financial year 1920-21 except in the case of certain societies which make 1 January the starting point of their year when the figures of 1920 have been utilized.

At the head of the list come the co-operative dairies with a turn-over of 750,000,000 crowns, of which approximately 195,000,000 crowns represent sales to butter-exporting societies. Next come the co-operative bacon-factories with a turn-over of 268,300,000 crowns, to which must be added 14,600,000 crowns representing an egg export trade which comes under their direction. Lastly we have the distributive co-operative societies, widely spread in the country districts (212,000,000 crowns).

Co-operative purchases amount to 163,600,000 crowns, of which 160,500,000 have to do wholly with agriculture (cattle food, 116,900,000 crowns; chemical fertilizers, 30,100,000 crowns; dairy requisites, etc. 7,400,000 crowns; seeds, 6,100,000 crowns). We have still to note the cattle exporting societies (33,200,000 crowns) and the Danish Co-operative Egg Export Society (20,700,000 crowns).

In all, the turn-over of the Danish co-operative societies amounted to 1,470,300,000 crowns in 1920-21. In 1919-20 it was only 1,165,300,000 crowns, in 1918-19, 758,900,000 crowns, and in 1913-14, 611,500,000 crowns.

H. M. R. L.

FRANCE.

- 1 THE GUIDING PRINCIPLES ESSENTIAL, TO THE FORMATION OF CO-OPERATIVE AGRICULTURAL CREDIT BANKS. — *La France Paysanne*. Paris, 13 November 1921.

M. Maurice Dufourmantelle, president of the *Centre fédératif du crédit populaire en France* has recently made the attempt, in *La France Paysanne*, to define the three principles which should guide the action of the promoters of co-operative agricultural credit banks.

The first principle relates to the recruiting of the original members. It is often supposed that an agricultural credit bank, in order to make its way, must from the first attract a fairly large number of members and build up a considerable share-capital. This is a misconception. According to M. Dufourmantelle, it is essential to invite to take part in the formation of the society only persons of unimpeachable character, possessing sufficient resources, and commanding general esteem. The first management committee of the association will naturally be drawn from among these original members, and it is obvious that the degree of confidence the society will inspire will depend in large measure on the character and reputation of the men who direct it. Then, too, the recruiting of the right people in a commune or group of communes can only be effected by individual propaganda work, whereby the promoters use discernment in putting the idea before each person in turn. By thus influencing and spreading conviction among fifteen or twenty of the best of their fellow-citizens, they will have done a far more lasting piece of work than if they had appealed for subscriptions at a public meeting. Later when the association has been formed, there will be scope for a public meeting to explain its objects and to spread interest. No risk will then be incurred, as nominations of new members will be submitted for the approval of the management committee. But in M. Dufourmantelle's opinion it is essential at first to exercise care in this respect.

Admission to the society must not be open to the first comer. Co-operative credit depending as it does primarily on the moral qualities of individuals, there can be no admission of unworthy persons into an association where the sum-total of the virtues counts for more than the sum-total of the capital. Such a selection however is only possible if the recruiting of the original members is carried on quietly and without advertizing it in any way, among those who know each other well. It is from among this select circle, small at first but widening as time goes on, that the credit bank is properly founded.

From this first guiding principle, there naturally springs a second, that relating to the area served by the credit bank. This should not have too extended a radius: otherwise there is less chance of obtaining a satisfactory knowledge whether of the candidates for membership, or of the possible borrowers, and serious difficulties are met with in estimating the credit-worthiness in either case. M. Dufourmantelle thinks that the communal bank best meets the case in a country like France. If the commune is

not important enough to ensure sufficient business to the bank, then, he would say, extend the area to the adjoining communes, but stop there.

The third and last principle relates to the question of liability. Is the bank to be constituted on the basis of limited liability, that is to say, in the event of its liquidation, should the liability of the members be limited to the total of their subscribed shares, their loans not exceeding such subscription? Or, on the other hand, is the basis of unlimited liability to be adopted, a basis by the terms of which the members are liable to the full extent of their property for the society's debts and not only in proportion to the subscribed capital? Shall we stop, as a solution, at an intermediate type, according to which each member is bound by the society's engagements not only up to the amount of the shares subscribed by him, but further, in case of need, for a certain multiple, provided for in the rules, of the total of his subscription? According as one or other of these schemes is adopted, a larger or smaller guarantee will be offered by the society to non-members who are thinking of depositing money with it or of making loans to it, and consequently the society will have a more or less considerable capacity for obtaining credit.

Clearly, the principle of limited liability is the one most satisfactory to the members. They know exactly how much they are risking. But it is also the arrangement which offers least attraction to outside capital, while at the same time limiting the resources of the bank. With the intermediate form, these resources are expanded, but still limited. With unlimited liability, they become considerable and put the society in a position to render numerous services. Thus it is this type that M. Dufourmantelle advises should be adopted.

At first sight there seem to be certain alarming consequences entailed by this system. To be liable for the society's debts in respect of all one's goods in the event of a business failure seems excessive. However, in spite of the word, nothing is really more limited than the liability incurred in the long run under this system by members. As a matter of fact, in societies of this type, the annual general meeting is bound to fix the total of the engagements the society may make, whether in the form of loans, or in that of accepting deposits. It is thus strictly the members themselves who fix the maximum of the liability they propose to incur, and one may feel sure that they will take the whole position of the society into account, that they will follow its working closely, that they will have the strengthening of the reserve funds much at heart, that they will expect the administrative body to exercise a thorough supervision of all operations, and will require from borrowers adequate personal guarantees (such as joint and several promissory notes) as well as sound chattel or real security (such as warrants).

Thus the risks of each individual are reduced by these various precautions, without lowering the borrowing capacity of the society.

Let us at this point compare the borrowing capacity of a bank with limited liability and that of a bank with unlimited liability, assuming that each has a foundation capital of 10,000 francs. The former will

find difficulty in obtaining a loan for a larger sum than its share capital, because that capital, and what additional reserve there may be, will represent the maximum guarantee that can be offered to non-members: from the same cause the business which it can do is limited. The second type will find itself on the contrary able to borrow all it needs, and in a position moreover to render all kinds of services, because in addition to its modest capital it can offer to its creditors the guarantee of many hundred thousand francs representing the aggregate amount of the possessions of the members, while at the same time this guarantee does not go beyond the limits fixed each year by the members themselves. M. B.

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2. TWELVE YEARS OF CO-OPERATIVE MILLING. — PEYSSONERIE (I.): Les magasins à blé Coopératifs in grain warehouses, in the *Annales de la mutualité et de la coopération agricoles*. Paris, November-December 1921.

As the co-operative grain warehouse was originally only the first stage towards the co-operative mill, the example of the Condom (Gers) co-operative milling society possesses an interest in that it shows what can be achieved in that direction.

The promoters of the society, founded in 1908, made it a principle that in their co-operative organization, the grain warehouse was to act as it were as the threshold of the mill, and to the mill they attached a co-operative bakery, thus establishing a complete system of disposing of the wheat yield by co-operative methods.

There is considerable variety in the terms offered for wheat deliveries at the Condom warehouses, and the society thus gains an elasticity of method which allows of meeting the requirements of 1,355 members.

Delivery without cash advanced. — The co-operators put their wheat at the disposal of the society from the date of harvest and do not ask for any advance payment. At the end of the society's working year they have the right to:

- (a) the value of the wheat delivered at the average price of the year.
- (b) a bonus reckoned for each member in proportion to the total quantity of wheat delivered.
- (c) interest at 4 per cent. of the value of the wheat received by the society, reckoned also on the basis of the average price of the year.

Delivery with part cash advanced. — The co-operators place their wheat at the disposal of the society from the date of harvest, and can have part payment in a week. The remainder is paid to them in accordance with the average price of the year and at the same time as the bonus out of the society's profits.

If the wheat is delivered later, then the members concerned have only a claim for a bonus proportional to the time still to elapse before the close of the season, and they cannot make any claim for the 4 per cent. interest which is available only on deliveries without cash payment.

Delivery with full cash payment. — The wheat is bought at market price and paid for on the spot. In this case the co-operator has no claim to any bonus, seeing that he has fixed the conditions of sale himself.

Wheat exchanged for value in bread. — In the last instance it is open to members to send wheat to the society for conversion into bread for household consumption. No bonus is payable on this transaction. Seventy kilogrammes of bread is delivered against a hectolitre of wheat.

It may be added that the co-operative society undertakes to buy from its members, with a view to selling again what surplus there may be, the whole yield of the harvest. This gives members the opportunity of selling off all their produce on the most favourable terms.

In 1920, 18,890 quintals of wheat came into the Condom warehouse, and 1,621,000 kilogrammes of bread were made in the bakery.

The financial results of the undertaking are excellent. All middlemen's profits are done away with, and the charge for grinding, made in accordance with trade usage, is reduced to a minimum (13 to 15 francs per kilogramme), so that the following profits have been shared each year among the members, in proportion to the transactions each has had with the society.

Years	Number of co operators	Excess of receipts over expenditure
—	—	francs
1909.	302	1,600
1910.	532	13,700
1911.	692	15,000
1912.	727	33,400
1913.	896	43,400
1914.	924	31,600
1915.	904	15,000
1916.	1,079	44,700
1917.	1,117	44,700
1918.	1,197	137,500
1919.	1,207	121,000
1920.	1,355	123,300

These figures afford proof of the prosperity of the society seeing that the share capital does not exceed 50,000 francs. M. B.

GREAT BRITAIN AND IRELAND.

A COOPERATIVE DAIRY FARMING SOCIETY. — *Journal of the Ministry of Agriculture*, London, December 1921.

The North Seaton Co-operative Farming Society, managed by a community of miners, was founded in 1872, the colliery village having no milk supply. At the start the members numbered forty or fifty miners, each of whom paid £1. They started with three cows, increasing the number as the demand for milk increased. After a time the Colliery Company

built a brick cow byre to stall 14 cows and let to the Society two fields amounting to 24 acres, half being grazed and the other half mown for hay. A larger byre was built about 15 years ago to accomodate 22 cows, and the stock now usually includes 20 cows, one bull and a pony. Milk is supplied to anyone in the village, members and non-members.

In 1914, the Society sold milk at 3d. a quart; in 1920 the price was 6d.; but while in 1914 the average cost of keeping each cow was £22 14s. in 1920 it was £70. In 1920 each cow produced over 800 gallons of milk. By showing in the balance sheet a nominal valuation of each cow (in 1920 it was £27) the Society protects itself against any sudden and heavy fall in prices which may occur. There are now 165 shareholders in the Society. Five per cent. is paid on the share capital, and the balance, after providing for a reserve fund, is distributed amongst the members as a bonus on their milk purchases. As much as 4s. in the £ has been paid in this way.

W. E. H. L.

HOLLAND.

1. CO-OPERATIVE DAIRIES IN 1920 (1). — *Verslappen en Mededeelingen van de Directie van den Landbouw* 1920, No. 3, 1921, No. 3. — *Algemeene Nederlandsche Zuivelbond, Verslag over het jaar 1920.*

The number of co-operative dairies and cheese-factories has varied in recent years as follows:

TABLE I. — *Statistics of Dairies and Cheese Factories.*

	1895	1910	1919	1920
Co-operative Dairies:				
Worked by steam	80	379	529	531
" " hand	136	301	55	22
Total	216	680	584	553
Co-operative cheese factories	—	201	230	236
Proprietary dairies:				
Worked by steam	148	241	216	266
" " hand	119	37	57	14
Total	267	278	273	280
Proprietary cheese factories	—	90	105	101

This table shows that between 1910 and 1920, the number of co-operative dairies was considerably reduced, falling from 680 to 552, while in the same period the number of proprietary dairies was maintained, passing from 278 to 280. The facts, however really point rather to a process of development, the small dairies disappearing and being replaced by dairies worked by steam. It is, in short, the dairies worked by hand that are

(1) *International Review of Agricultural Economics*, January 1918, page 1, and January-February 1919, page 35.

fewer, falling from 301 to 22, while the dairies worked by steam rose from 379 to 531.

This generalization is fully confirmed by the development of the Dutch General Association of Co-operative Dairies, which comprises most of the co-operative dairies of the Netherlands. The development of the association is shown in the following table.

TABLE II. — *Development of the Dutch General Association of Co-operative Dairies to 1920.*

Years	Number of affiliated dairies	Quantity of milk handled
		millions of kilogrammes
1913	383	959
1914	454	1,129
1915	465	1,209
1916	495	1,414
1917	518	1,373
1918	538	1,164
1919	502	1,144
1920	485	1,252

It will be observed that from 1918 to 1920, the quantity of milk handled increased by 88,000,000 kilogrammes, although the number of affiliated dairies fell from 538 to 485. The quantity of milk handled is besides in 1920 much above the pre-war figures, while all over the country the butter produced under the supervision of the "Butter Control Stations" has notably decreased. This production in thousands of kilogrammes was 45,763 in 1912, 50,267 in 1913, 54,985 in 1914, 57,815 in 1915, 60,809 in 1916, 54,094 in 1917, 39,657 in 1918, and 42,990 in 1919.

These few figures, scanty as they are, are proof of the encouraging results obtained by co-operation.

II. M. R. I.,

2. THE RAFFEISEN BANKS IN 1919. — RAARCIJFERS VOOR HET KONINKRIJK DER NEDERLANDER (*Statistical Year Book of the Kingdom of Holland*) 1919. The Hague, 1921.

The increase in the transactions of the Raffaisen banks noted in our issue of April 1921 has been even more pronounced in 1919. The figures in brackets are those of 1918.

In 1919, there were 1,159 (1,115) Raffaisen banks in Holland. Out of these, 1,154 (1,105) have supplied information. These banks have received during the year 159,312 (162,335) deposits, amounting to 156,693,000 (135,728,000) florins, and have effected 92,649 (84,626) repayments, which including interest, amounted to 132,624,000 (92,819,000) florins, so that at the end of the year the total of deposits amounted to 227,765,000 (196,842,000) florins, divided among 222,520 (216,559) depositors. The

number of loans outstanding at the end of the year was 52,323 (46,330) amounting to 78,662,000 (53,000,000) florins; out of these, 11,006 (9,791) loans had been made in the course of the year, amounting to a total of 49,760,000 (28,268,000) florins. The total assets of the banks amounted to 249,307,000 (213,946,000) florins, and the profits of the year were 539,000 (435,000) florins.

H. M. R. L.

NORWAY.

ASSOCIATIONS OF FOREST OWNERS. — ALME (Hølge): Kort oversikt over skogelers-ammenslutninger (*A Brief Account of the Associations of Forest-owners*). Christiania, 1921.

Thirty years ago, the production of and trade in timber were not yet organized in Norway. It was only when the paper industry began to demand larger and larger quantities of cellulose that the owners succeed in forcing the shippers to take small timber as well as the large tree-trunks for sea-transport. This small timber was then reckoned by the volume of wood. This system which has been in force since 1917 renders proper thinning of the forests possible, and even the sale of trees of undeveloped growth.

In 1911, further progress was made by the foundation of the *Skogbrand*, a society for co-operative insurance against forest fires.

A short time after the foundation of the *Skogbrand*, the owners actuated by a desire to safeguard their interests, formed a league which took the name of the *Norsk Skogeierforbund*. This league includes local associations, of which the most important is that of the basin of Glommen.

The *Norsk Skogeierforbund* makes it its especial business to standardize processes employed in measuring timber, and prices, in the different provinces.

To facilitate credit in 1917 a considerable number of forest owners, founded a bank at Christiania and paid up a capital of two million crowns, which in 1918 they raised to five million crowns.

In addition, forest owners interested themselves in improvements in sylviculture, founding a forestry society called *Det norske Skogselskap*, and a credit society for agriculture and sylviculture under the name of *Norges Kredit forening for Land-og Skogbruk*. In the granting of loans, this latter gives preference to forest owners who are insured in the *Skogbrand*, as the policy of that society constitutes for the credit society a security of high value.

H. M. R. L.

POLAND.

THE FEDERATION OF POLISH CO-OPERATIVE SOCIETIES IN THE PROVINCES OF POSNANIA AND WEST PRUSSIA IN 1920. — REPORT OF THE FEDERATION FOR THE YEARS 1918-1919. Posen, 1921.

This Federation, of which we gave an account (1) in 1917 attained its fiftieth year in 1921. At the close of the preceding financial year, the affiliated societies in its original area of operations, now incorporated in

(1) See our issue of June 1917, page 21.

Poland, comprised 201 credit societies, with 118,998 members : 64 co-operative societies for the sale of produce and purchase of requisites with 8,483 members ; eight societies for the acquisition and sub-division of land, with 1,719 members ; ten miscellaneous societies with 5,427 members : making a total of 283 societies with 134,627 members.

To these figures must be added, for the new territories to which the working of the Federation is now extended 27 credit societies with 16,627 members ; one society for the sale of produce and purchase of requisites with 111 members, one society for the acquisition and sub-division of land with 117 members ; making a total of 29 associations with 19,855 members.

Among the 118,998 members of the credit societies of the original area of operations, 75,191 agriculturists are included, of whom 65,438 are small proprietors : among the 16,627 members of the credit societies of the new area, 7,519 agriculturists are included of whom 7,244 are small proprietors.

The greater part of the working capital of the credit societies is built up of deposits. In 1920 there were no less than 403,506 depositors, 355,188 of whom belonged to the original area. The average sum deposited was 3,089 marks : it was appreciably less in the new area.

This high figure results in the preponderance of borrowed capital over owned capital in the credit societies. The 201 credit societies belonging to the original area of operations had at their disposal 148,604,503 marks of owned capital as against 2,207,891,041 marks of borrowed capital : that is for every 100 marks of owned capital they had 1,486 marks of borrowed capital. In the two groups of credit societies in the new area, borrowed capital plays an even larger part ; in the first, there were 937,806 marks of owned capital and 16,111,500 marks of borrowed capital, that is for every 100 marks of owned capital, there were 1,717 marks of borrowed capital. In the second group, there were 4,257,499 marks of owned capital, and 98,629,741 marks of borrowed capital, that is 2,317 marks of borrowed capital for every 100 marks of owned capital.

As regards the societies for sale and purchase in the original area, their growing importance is proved by the table given on page 197.

These figures must obviously be interpreted with some care, in view of the fluctuations in the value of the mark during the last financial years ; if however attention is directed to the volume of transactions effected during the same period, a remarkable progress is noticeable, especially in the last two financial years. The number of quintals of goods sold rises as a matter of fact from 6,448,529 in 1911-12, to 7,950,535 in 1912-13, to 8,546,438 in 1913-14, to 5,883,566 in 1914-15, to 7,295,633 in 1915-16, to 7,731,681 in 1916-17, to 7,690,806 in 1917-18. It reaches 9,181,561 quintals in 1918-19 and 10,681,170 in 1919-20.

M. T.

Progress of the Co-operative Societies for Purchase and Sale.

Year	Number of societies	Working capital	Produce warehoused	Sale of produce	Profits		Expenses	
					total	%	total	%
		marks	marks	marks	marks		marks	
1 July 1910 - 30 June 1911	54	9,783,385	577,125	29,778,374	889,431	2.99	765,534	2.57
» 1911 - » 1912	56	11,785,149	781,106	42,874,092	1,321,382	3.08	923,750	2.15
» 1912 - » 1913	57	12,557,538	697,781	45,844,454	1,041,678	2.27	1,032,035	2.25
» 1913 - » 1914	60	14,177,706	600,414	44,947,144	1,320,113	2.94	1,136,997	2.53
» 1914 - » 1915	61	12,070,309	465,974	40,979,776	2,420,351	5.91	1,265,062	3.09
» 1915 - » 1916	63	12,756,831	366,676	56,681,667	2,638,535	4.74	1,402,392	2.52
» 1916 - » 1917	63	12,700,160	451,314	60,795,314	2,539,597	4.18	1,714,476	2.82
» 1917 - » 1918	63	14,150,638	579,644	63,014,630	2,711,453	4.60	1,989,291	3.16
» 1918 - » 1919	62	24,392,109	740,054	95,744,123	4,443,570	4.34	2,890,818	2.98
» 1919 - » 1920	64	74,745,473	5,451,600	309,545,111	21,159,698	6.84	9,477,678	3.06

PROTECTORATE OF SOUTH-WEST AFRICA.

THE CO-OPERATIVE BANK OF WINDHUK. — *Deutsche Landwirtschaftliche Genossenschaftspress*, No 23. Berlin, 15 December 1921

The general meeting of the Co-operative Bank of Windhuk was held on 18 May 1921, when the following matters were discussed.

It was stated that the German law of 1 May 1889 relating to co-operative associations had been adopted in November 1920, *mutatis mutandis*, by the Administration of the Protectorate, so that the legal position of the Bank had thereby become confirmed afresh. The danger of compulsory dissolution of the Bank was thus at an end.

The difficulties accompanying the sale of all agricultural products had been a cause of serious embarrassment to the farming class, an embarrassment the more acute from the international financial crisis and the extreme caution of the banks and capitalists. But as the trading area of Windhuk was affected only inconsiderably by the after effects of the War and as the Society had adopted a thoroughly practical attitude as regards the alteration of the currency of the country (from paper marks to shillings) the general position of the Bank was completely satisfactory. The balance-sheets would appear as previously in shillings and in paper currency, but during 1921 all trading accounts would be kept in English currency. The total turnover in 1920 amounted to 10,450,489 shillings and marks, of which sum the turnover in paper marks only formed about a sixth. The Society's owned capital included: (a) share capital 50,000 shillings; (b) reserve fund, 49,586.32 shillings and 125,413.68 marks; (c) trading fund No. 1, 65,000 shillings and (d) trading fund No. 2 (specially set aside during the war) 20,000 shillings; in all 184,586.32 shillings and 125,413.68 marks. The net profits amounted to 31,901.51 shillings and 12,992.77 marks. The following division of the net profit was proposed: 4,000 shillings to be appropriated as 8 per cent. dividend on the shares; 5,000 shillings to be transferred to the trading fund No. 1; 20,000 shillings to the trading fund No. 2; and 2,901 51 shillings to be carried forward to the following year. The whole of the profits in German paper money (12,992.77 marks) would have to be appropriated to the relief of the acute situation in regard to the price of meat.

The number of members was 133 and their total liability 665,000 shillings.

It was proposed that retiring members should not be at once repaid the amount of their shares, but that the first payment should be made on 1 April 1924, in accordance with the moratorium laid down in the regulations concerning the currency. Further steps were to be taken to obtain credit from the Land and Agricultural Bank on the ground that the German Agricultural Bank, of which this bank is the successor, always considered the fostering of agricultural co-operation as among its principal functions.

M. T.

SWITZERLAND.

THE PRESENT POSITION OF THE DAIRY FEDERATIONS. — *Le Paysan Fribourgeois*. Fribourg, 20 January 1922.

The Central Union of Swiss Milk Producers, founded in 1907, comprises 25 federations with 98,066 members owning 516,927 cows. The oldest federation is the Agricultural Dairy (*Laiterie Agricole*) of Lausanne, founded in 1895, which includes at the present time 875 members, owning 3,560 cows; the last to come into existence was the Valais Federation of Milk Producers, founded in 1919, which already numbers 4,500 members owning 12,270 cows. In order of importance come: the Federation of the Berne Cheesemaking and Dairy Societies, founded in 1906 with its 19,945 members owning 132,826 cows, and the Federation for the North of Eastern Switzerland of Cheesemaking and Dairy Societies, founded in 1906, with its 15,178 members owning 59,649 cows: the Federation for the North of Western Switzerland of Cheesemaking and Dairy Societies, founded in 1904, comes third with 8,118 members owning 31,735 cows. The smallest federation is the Federation of the Milk Producers of Nidwalden, founded in 1916, with 92 members owning 388 cows. M. T.

UNITED STATES.

1. THE FLORIDA CITRUS EXCHANGE IN 1920-21. *Florida Grower*, Vol. XXIV, No. 13. Tampa (Florida), 24 September, 1921.

The annual report of the Florida Citrus Exchange for the year ending 31 August 1921 shows the year to have been the most successful in the history of the organization as regards the number of boxes of fruit handled, number of local associations affiliated, number of new members registered and the number of northern markets in which fruit was sold. The exchange handled 32 $\frac{1}{4}$ per cent. of the citrus crop of the state, which was twelve million boxes, and figures show that the organization is growing faster than the increase in the citrus crop of the state. Sixty-four new northern markets were opened and carload sales effected, and eleven new packing houses are under construction; the volume of fruit which will be handled this season, exclusive of the additional tonnage of the Standard Growers' Exchange, which amalgamated with the Florida Citrus Exchange during the year, is estimated at a very large increase over last season.

It is estimated that the increased freight charges cost the growers \$2,400,000 above the normal transportation costs. The Exchange has, however, obtained a reduction in freight charges of thirty-six cents per box on grapefruit on the lines running to Montana, Oregon and Washington, thus enabling those distant markets to be re-opened.

Four precooling plants are now in operation and, it is estimated, will enable 500,000 boxes of precooled fruit to be handled per season, with a saving of forty-five dollars per car in refrigerating cost, whilst reducing decay in transit very materially.

The report states that advertising was carried out during the year on a larger scale than hitherto and that the results were satisfactory.

W. L. H. I.

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2. CALIFORNIA GROWERS' AND SHIPPERS' PROTECTIVE LEAGUE. — *California Fruit News*, Vol. 64, Nos. 1737 and 1738. San Francisco, 22 and 29 October 1921.

Early in October 1921 the shippers and organized growing interests connected with the deciduous fruit industry of California formed a protective league known as the California Growers' and Shippers' Protective League. The League will work on similar lines to the Citrus Protective League. Its objects are to protect the interests of the growers and shippers in securing just and equitable freight rates; to protect the industry against any unjust discrimination or exaction on the part of carriers; and to promote the general welfare and to assist in building up the deciduous fruit industry in California.

Individuals, firms, corporations or associations, in any part of California, undertaking a deciduous fruit shipping business are eligible for membership, the fees being quite nominal.

Already most of the parties interested are members of the league, the principal office of which is in San Francisco. W. E. H. I.

Credit

FRANCE.

AGRICULTURAL CREDIT DURING THE WAR.

OFFICIAL SOURCES:

DÉCRET PORTANT RÈGLEMENT D'ADMINISTRATION PUBLIQUE RELATIF À LA CONSTATATION ET L'ÉVALUATION DES DOMMAGES RÉSULTANT DES FAITS DE GUERRE (20 July 1915). *Journal Officiel de la République Française*. Paris, 23 July 1915.

LOI RELATIVE À LA MISE EN CULTURE DES TERRES ABANDONNÉES (4 May 1918). *Journal Officiel de la République Française*. Paris, 8 May 1918.

DÉCRET PORTANT RÈGLEMENT D'ADMINISTRATION PUBLIQUE POUR L'APPLICATION DE LA LOI DU 4 MAI 1918, RELATIVE À LA MISE EN CULTURE DES TERRES ABANDONNÉES (12 July 1918). *Journal Officiel de la République Française*. Paris, 13 July 1918.

CHAMBRE DES DÉPUTÉS: RAPPORT FAIT AU NOM DE LA COMMISSION CHARGÉE D'EXAMINER LE PROJET DE LA LOI PORTANT FIXATION DU BUDGET ORDINAIRE DES SERVICES DE L'EXERCICE 1919 (AGRICULTURE), PAR M. ADRIEN DARIAC, DÉPUTÉ (SESSION DE 1919, SÉANCE DU 22 MAI 1919, ANNEXE N° 6164).

RAPPORT DU MINISTRE DE L'AGRICULTURE SUR L'APPLICATION DE LA LOI DU 4 MAI 1918 RELATIVE À LA MISE EN CULTURE DES TERRES ABANDONNÉES. Paris, 1920.

RAPPORT PRÉSENTÉ À LA COMMISSION PLÉNIÈRE DE L'OFFICE NATIONAL DU CRÉDIT AGRICOLE PAR LE CONSEIL D'ADMINISTRATION DE L'OFFICE. Paris, 1921.

There has been in France little development of agricultural credit other than co-operative. This is due to the fact that the needs of agriculturists are effectively met by co-operative credit, for which capital has been provided on a large scale. Even in dealing with matters apparently in no way germane to co-operative credit, such as loans for the purchase of small holdings granted to ex-service men in receipt of pensions or to civilian sufferers by the war, the State only grants credit through the medium of co-operative banks, with the aim of thus enrolling fresh support for the cause of co-operative credit.

Non-co-operative credit has been employed in two directions only as an outcome of the war:

1. Advances of compensation due for damage resulting from the war.
2. Loans for recultivation of abandoned lands.

We will proceed to consider these in order.

§ I. ADVANCES OF COMPENSATION DUE FOR WAR DAMAGE.

As early as 1915, a Decree (dated 20 July of that year) provided (Article 34) for the payment of sums on account to private persons who had suffered material losses as a result of acts of war. In principle these payments could only be made after the damage had been verified and its amount estimated by a Cantonal Commission, but it was laid down by instructions of the Agricultural Department of the Ministry of Agriculture, dated 30 June 1917, that immediate advances in kind, intended to facilitate recultivation or the gathering of crops, could be granted through the medium of the prefects of the department and their technical staff to agriculturists who had incurred losses in the regions where the Commissions for estimation of damage had not yet been able to get to work. Such advances consisted of allocations of seeds, fertilizers, agricultural implements, draught animals and other live stock. In each department arrangements had been made for a purchasing commission to buy live stock, seeds and agricultural machinery. As the goods purchased were delivered, the applications of farmers who had incurred losses were met, such allowances being regarded as payment on account of compensation for war damage. The allowances were granted only to those whose losses made such immediate advances necessary, to the exclusion of persons who were in a position, apart from the damage whatever might be its magnitude, to await the normal course of procedure.

By the circular of the Ministry dated 21 October 1918, new provisions were added, of which the following is the substance :

Advances which may amount to 1,000 francs and exceptionally to 2,000 francs a hectare, but may not exceed the amount of the loss incurred (pre-war valuation) are made to farmers in the liberated districts who return to their former farms. Out of the sum awarded 400 francs a hectare may be set aside as a working fund to meet necessities of life, small purchases, wages of labourers until the first harvest has been gathered. The remainder must be spent on purchases of live stock, supplies and seed.

In order to obtain these advances the person concerned must apply to the prefect of the department, stating, as well as the amount of the advance for which he asks : (1) his urgent reason for having recourse to this advance in order to restore his farm to working condition ; (2) the kind and size of the farm he wishes to restore ; (3) the resources he reckons on employing to this end ; (4) the exact needs which the advance is to meet.

To this application a detailed statement is annexed of the losses incurred, attested by two witnesses who are well known in the farming world of the district, and certified by the mayor.

A special departmental committee, which meets every week, fixes within a fortnight the amount of the advance to which the applicant is entitled. This bears no interest and is repayable out of war damages.

The advances just described relate only to the restoration of culti-

vation. To the Ministry of the Liberated Regions, there are also attached technical reconstruction departments to whom belong the work of repairing and rebuilding dwellings, as well as the construction and fitting up of temporary houses and shelters. The farmer who wishes to repair his buildings can obtain allowances in instalments, in kind or in cash, equal to three quarters of the value of the damage done, if he apply for such allowances for the purpose of works of construction urgently needed. Exceptionally, the allowances may amount to 90 per cent. of the valuation in the case of urgent work entrusted for execution to a co-operative society for reconstruction.

Stocks of temporary houses are, by the efforts of the administration, in course of manufacture. The person whose house has been destroyed can apply to the prefecture and obtain the grant of a temporary house, either as a free loan, or for a rent amounting to 3 per cent. of the net cost, or by buying it for 50 per cent. of the net cost.

Advances are also made for household refurnishing: these may amount to 1,000 francs for the head of a family, and 200 francs for each person dependent on him who is not an earner, but they must not exceed the amount of his loss.

§ 2 CREDITS FOR RECULTIVATION OF LAND.

The second class of loans which we are to describe emanates from the Law of 4 May 1918 relating to the cultivation of abandoned lands. This law as a matter of fact opened a credit of 100 million francs with the Ministry of Agriculture for the purpose of granting loans, without interest, to farmers and to agricultural associations who were ready to undertake the cultivation of the abandoned lands.

A decree of 12 July 1918 charged the departmental agricultural committees in each department (1) to investigate the applications, to grant loans, and to see that the money advanced was properly used. Further this same decree charged the Office for the Inspection of Agricultural Associations and Credit Institutions, at the Ministry of Agriculture, to supervise the use of the funds by the committees as well as by the borrowers.

Loans were granted to the departmental committees by the Minister of Agriculture, according to the advice of a distribution committee established by article 1 of the decree in question.

The maximum loan was fixed at 250 francs per hectare of cultivable land, in the case of small parcels of deserted land, and up to 1,000 francs per hectare in the case of whole estates. When the beneficiaries were

(1) The Departmental agricultural committees had been formed a little earlier by a Decree of 14 January 1918. They were composed of the prefect, who acted as chairman, of the director of technical agriculture and of one farmer for each district (*arrondissement*) chosen by the prefect from a list of two names, drawn up by the agricultural associations of the department.

farmers natives of the liberated districts, the loan was increased to 500 francs per hectare for uncultivated parcels of land and 2,000 francs per hectare for whole estates.

The loans to farmers were granted at first for a period not ending later than 31 December of the year in which the agricultural year for which the loans were made came to an end, but the Decree of 12 July 1918 accorded to the borrowers facilities for repayment by authorizing the agricultural committees to renew the loans on condition of the repayment on account of one fifth or one tenth of the loan according to whether the farmer belonged to the inland zone or was a native of the devastated districts.

From 4 May 1918 to 11 May 1919 the law was administered directly by the Commissioner for Agriculture. Since 11 May 1919, the Commissioner for Agriculture having retired, the Office for the Inspection of Agricultural Associations, which was entrusted with the supervision, has been given also powers to direct the application of the law.

At the outset it was of the utmost importance to act rapidly, owing to the enormous difficulties which the supply of cereals for the troops in the field and the civil population entailed. By constantly urging on the departmental committees the Commissioner for Agriculture greatly increased, in the shortest possible time, the amount of land under cereals.

The rapidity with which it was necessary to act, joined to the lack of experience of new bodies such as the agricultural committees, brought about an interpretation of the law in a very wide sense and loans have been granted for the repayment of which the necessary securities have not always been given.

Up to 11 May 1919 the application of the law has produced the following results :

Number of loans	1,617
Total amount of loans granted	57,204,586 frs.
Total number of hectares put under cultivation	101,644

The average area of farms put into cultivation, during this period, was about 62 hectares, and the average amount of the loans granted was 35,300 francs.

After the Commissioner of Agriculture retired, the Office for the Inspection of Agricultural Associations and of Credit Institutions, entrusted thenceforth with the application of the law, immediately initiated an investigation into the transactions of the departmental agricultural committees.

Taking into consideration the facts disclosed and the new needs caused by the termination of the war and the liberation of the invaded districts, the Minister of Agriculture was of opinion that important changes should be made in the way in which the law was administered.

Some improvements were effected by simple instructions given to departmental committees in current correspondence. Thus they were told to take advantage of applications for the renewal of loans to demand of all borrowers substantial security for repayment if such had not been given when the loan was granted. The departmental committees were also instructed to reject applications for loans for the development of lands which had been merely "neglected" and were not lands to which the law was intended to apply.

Finally a ministerial circular of 22 August 1919 defined the conditions on which loans were to be made in applying the law of 4 May 1918.

Loans may only be granted :

- (a) in the liberated districts, to all farmers or co-operative agricultural societies who intend to cultivate lands which have been deserted ;
- (b) in the rest of France, to demobilized farmers and to co-operative agricultural societies who wish again to cultivate lands which have been deserted.

In order to help the greatest possible number of farmers, the committees were recommended to grant large loans only in quite exceptional cases. Further in many cases instructions were given to the committees that without respect of persons they should grant loans in priority to fathers of large families and to occupiers of medium-sized and small holdings. Borrowers were required to furnish special security for repayment in the shape of warrants, bonds, charges on compensation for war damages, mortgages, etc. Finally borrowers were required to be members of some agricultural association and to furnish references as to their capability as farmers.

So as to assist the revival of agricultural activity in the liberated regions, the Minister of Agriculture decided, in agreement with the prefects, to make important deductions from the credit apportioned to the inland departments so that they might be given to the departments which suffered invasion, the needs of which are continually increasing.

The results thus obtained between 14 May 1919 and 31 December 1919 were as follows :

Number of loans	1,046
Total amount of loans granted.	27,379,568 frs
Total number of hectares put under cultivation	37,128

The average area of farms put under cultivation during this period was only 35 hectares, and the average loan granted was 26,100 francs.

From 1 January to 31 May 1920 nearly 10 millions of francs, the result of reducing the credits granted to inland departments, were put at the disposal of the agricultural committees of the liberated districts, which had received, when the law expired (agricultural season 1919-20) the following total loans :

Aisne	11,500,000 francs
Ardennes	6,500,000
Marne	2,685,000
Meurthe-et-Moselle	1,050,000
Meuse	2,250,000
Nord	2,055,999
Oise	7,700,000
Pas-de-Calais	2,220,000
Haut-Rhin	50,000
Seine-et-Marne	7,500,000
Somme	3,800,000
Vosges	50,000

Total credits allocated to the invaded
departments 47,360,999 francs

To sum up, up to 31 December 1919, out of 99,190,000 francs credits opened in favour of the committees, these had granted 84,584,154 francs in loans to 2,663 farmers, for the cultivation of 138,863 hectares. Out of 2,663 borrowers, 1,125 were refugees or farmers of the liberated regions to whom 54,890,148 francs were granted as loans.

Up to 31 May 1920, out of 100 millions of francs credits opened in favour of the committees, these had granted 91,299,354 francs in loans to 3,168 farmers, for the cultivation of 168,132 hectares. Out of 3,168 borrowers 1,450 were refugees or farmers of the liberated regions, to whom had been granted 60,880,998 francs as loans.

The law of 5 August 1920 relating to co-operative credit and agricultural co-operation has entrusted to the National Office of Agricultural Credit the administration of the credits voted in accordance with the Law of 4 May 1918, relating to the recultivation of deserted lands. These credits represent for the Office a debt to be recovered. In fact at the end of October 1921, 36,500,000 francs approximately had already been repaid, but it is possible and indeed probable that the whole of the debt will not be recovered. Indeed, article 7 of the Law of 4 May 1918 stated explicitly that where deficits occurred in connection with farms to which loans had been granted no suit could be brought against those farming it for recovery, except in case of fraud. However the fact that the total of repayments between 1 June 1920 and 1 November 1921 has exceeded 4,395,512 francs is sufficient indication of the good faith of the borrowers and of the success of their efforts.

M. B.

MISCELLANEOUS INFORMATION RELATING TO CREDIT.

ALGERIA.

A CREDIT OF TEN MILLION FRANCS FOR VINE-GROWERS — *La Voix des Colons*.
Algiers, 5 February 1922.

A crisis of some severity is just now affecting vine-growing in the department of Algiers. It has arisen in consequence of the restriction of banking credit, together with the total failure of the 1921 crop in certain districts, a failure which appreciably affected the attitude of the financial houses.

As a means of relieving the situation, the Agriculturists' Confederation of Algiers, after numerous preliminaries, succeeded in concluding an agreement with the Bank of Algeria and with the *Crédit Foncier et Agricole d'Algérie*, which through the medium of the Regional Agricultural Co-operative Credit Bank of Algiers and the Central Credit Bank agreed to the opening of a credit of ten million francs in favour of vine-growers who had suffered losses, and who were members of the Agriculturists' Confederation of the department of Algiers.

The Regional Agricultural Co-operative Credit Bank of Algiers and the Central Credit Bank laid down the following conditions for the apportionment of this credit.

It was decided that the transactions should be effected under the auspices of either bank at the borrowers' choice, but that there should be unity of action, in so far as that the two banks constitute one discounting body, whose business it is to examine all applications for credit and to give them such furtherance as is admissible in each case.

The vinegrowers of each commune are to form one or more groups and to be jointly and severally liable for the repayment of the advances which may be made to their group.

For this purpose, they will draw up a collective application for loans, in which they will fix by mutual agreement the credits that are actually necessary at the moment. Printed forms of application will be available. These will distinguish between credits required for equipment, and credits required for labour.

In the case of isolated applications, either their affiliation to a group will be considered, or the establishing of a satisfactory guarantee.

Payments for equipment will be arranged by the regional agricultural co-operative credit banks, on the presentation of invoices by the firms supplying the goods, and in accordance with instructions given by the borrowers.

Credits required for payment of wages will be arranged on a graduated scale up to the time of the vintage, according to information supplied by the communal groups.

The discounting body formed by the two banks will reserve to itself the discussion of the total of the credits applied for by the communal bodies and of the securities offered.

Each borrower must consent to pay into a special guarantee fund ten per cent. of the total of credit applied for. This ten per cent. is employed in the current and ordinary operations of the *Crédit Agricole* for subscribing to the share capital of the local banks.

On occasion, when the transactions to be undertaken with the vine-growers seem to be of a special character, this 10 per cent. will not be converted into shares until after the completion of the transactions and if the borrowers then desire to remain clients of the co-operative agricultural credit bank; if not, it will be returned to them.

Up to then the guarantee payments will be carried forward to a waiting account and will serve to cover losses which might arise from loans before the coming into force of the joint and several guarantee of the communal groups. The sums thus built up as a guarantee fund will produce up to 6 per cent. interest. This interest will be paid as soon as repayments are made to the guarantee fund and in proportion to them.

EGYPT.

THE LAND BANK OF EGYPT IN 1920-21. — REPORTS OF THE ADMINISTRATIVE COUNCIL AND OF THE CENSORS FINANCIAL YEAR 1920-21. Alexandria, 1921

The Land Bank from its foundation in 1905 up to the close of the financial year 1920-21, granted 3,182 loans repayable by instalments, and effected 390 sales of property of which the price was payable by instalments, making a total of 10,368,219 Egyptian pounds, or 268,780,802.52 francs advanced. Of these 90 loans were granted and seven sales were effected during the financial year 1920-21, the amount advanced being 3,14,418 Egyptian pounds, or 8,928,529.15 francs. The instalments of repayment and interest amounted to 4,249,854 Egyptian pounds, or 110,171,148.99 francs, of which 209,245 Egyptian pounds, or 5,424,380.06 francs were received in the financial year. As, on the other hand, that portion of the annual charges which represents the instalment of capital repaid was 2,456,792 Egyptian pounds or 63,688,724.28 francs of which 223,836 Egyptian pounds or 5,802,623.85 francs belong to the year 1920-21, the balance outstanding on 30 September 1921 was 3,661,571 Egyptian pounds, or 94,920,864.91 francs.

Fifty-six current accounts guaranteed by mortgages were opened from 1905 to 1921, representing a capital of 609,522 Egyptian pounds, or 15,800,963.52 francs. In the course of the financial year four credits of this kind were opened, representing 14,300 Egyptian pounds or 360,706.41 francs. As on the other hand, expired loans, repayments and unutilized credits amounted to 514,434 Egyptian pounds, or 13,335,957.25 francs the balance outstanding was 95,087 Egyptian pounds, or 2,465,006.27 francs.

Adding together the mortgage loans repayable by instalments and the

current accounts guaranteed by mortgage still open on 30 September 1921, a total of 3,756,659 Egyptian pounds is obtained, or 97,385,871.19 francs, to which should be added 84,203 Egyptian pounds or 2,182,841.68 francs, due in respect of the sale of lands upon which the Bank foreclosed. The total of mortgage operations thus comes to 3,840,863 Egyptian pounds, or 99,568,712.87 francs.

It is interesting to note that nearly all the current loans have been granted on rural property. This is clear from the following table.

Nature of loans	Number	Amount outstanding (Egyptian pounds)
Rural loans	1,995	3,462,927
Urban loans	89	256,452
Loans of a mixed character . . .	6	37,280
	2,090	3,756,659

We may add that the Land Bank makes short-terms loans for agricultural purposes and within the limits of the yield from their land under cultivation to borrowers whose lands are already mortgaged. These advances amounted for the financial year to 36,777 Egyptian pounds, or 953,407.15 francs.

M. B.

HOLLAND

MORTGAGE CREDIT IN 1920. — JAARCYFERS VOOR HET KONINKRIJK DER NEDERLANDEN
(*Statistical Year-book of the Kingdom of Holland*), Year 1920. The Hague, 1921.

During the year 1920 there was a still more marked increase in mortgage indebtedness in Holland as compared with the figures of the previous year (1). The following table will make this clear.

(1) See the *International Review of Agricultural Economics*, March 1921, page 124.

The following table shows the mortgages classified according to the amount of the debt for which they form the security:

TABLE II. — *Classification of Mortgages Registered in 1920 according to the Amount of the Debt.*

			Number	Amount florins
Debt of	1 to	200 florins	117	15,114
" "	200 to	300 "	396	88,518
" "	300 to	1,000 "	7,437	4,585,590
" "	1,000 to	5,000 "	46,268	112,288,362
" "	5,000 to	10,000 "	19,134	125,620,383
" "	10,000 to	20,000 "	13,061	168,063,297
" "	20,000 to	30,000 "	4,297	97,892,227
" "	30,000 to	50,000 "	2,816	100,023,571
" "	50,000 to	100,000 "	1,647	104,371,319
" "	100,000 florins and over	. . . .	1,021	267,484,481
Total . . .			96,194	981,332,862

Classified according to the rate of interest, the mortgages registered in 1920 are as follows:

TABLE III. — *Classification of the Mortgages registered in 1920 according to the Rate of Interest.*

		Number	Amount florins
Without interest		888	12,850,231
Less than 3 %		22	125,100
From 3 to 3 ½ %		103	580,063
" 3 ½ " 4 %		165	702,702
" 4 " 4 ½ %		4,243	22,182,349
" 4 ½ " 5 %		7,559	44,686,578
" 5 " 5 ½ %		28,274	155,263,197
" 5 ½ " 6 %		16,097	146,976,356
" 6 " 7 %		21,041	243,074,316
" 7 % upwards		2,283	27,419,155
Rate not ascertained		12,519	327,462,785
Total . . .		96,194	981,332,862

The mortgages outstanding on 31 December 1919 and 31 December 1920 were classified as shown in Table IV (page 212).

The amount of the mortgage loans granted by the 52 mortgage banks carrying on business in Holland reached 594,113,000 florins at the end of 1920. To these figures must be added 1,614,000 florins lent by two colonial mortgage banks (1).

(1) For one of these banks the total for 1919 was not entered, as the report for 1920 had not been received.

TABLE IV. — *Mortgages Outstanding on 31 Dec. 1919 and 31 Dec. 1920.*

Rate of interest	On 31 December 1919			On 31 December 1920		
	Number	Amount in thousands of florins	Amount as % of total	Number	Amount in thousands of florins	Amount as % of total
Without interest	3,535	28,413	0.93	3,325	33,093	0.91
Less than 3 %	335	1,878	0.06	314	1,867	0.05
From 3 to 3 ½ %	1,856	11,910	0.39	1,765	11,813	0.34
» 3 ½ » 4 %	4,524	24,367	0.80	4,089	20,681	0.59
» 4 » 4 ½ %	111,694	519,422	17.07	99,516	443,907	12.63
» 4 ½ » 5 %	160,112	973,533	32.00	144,156	882,690	25.11
» 5 » 5 ½ %	147,176	709,418	23.32	154,833	760,374	21.63
» 5 ½ » 6 %	8,735	100,739	3.31	27,877	228,633	6.50
» 6 » 7 %	8,518	73,402	2.41	29,676	292,289	8.31
7 % upwards	531	6,101	0.20	2,555	30,895	0.88
Rate not ascertained	39,947	593,576	19.51	45,341	809,532	23.02
Total . . .	496,966	3,042,760	100.00	508,457	3,515,773	100.00

The following table shows the loans granted up to the end of 1914 and of 1920 by the more important mortgage banks.

TABLE V. — *Loans Granted up to the end of 1914 and of 1920 by the Principal Mortgage Banks.*

Name of bank	1914 (in thousands of florins)	1920 (in thousands of florins)
Algemeene Friesche Hypotheekbank	5,547	9,902
Algemeene Hypotheekbank	16,080	17,642
Amsterdamsche Hypotheekbank	20,935	19,792
Arnhemsche Hypotheekbank	10,075	11,703
Bataafsche Hypotheekbank	9,842	10,380
Dordrechtse Hypotheekbank	6,525	14,575
Eerste Nederlandsche Hypotheekbriefbank	14,006	14,700
Friesch-Groningsche Hypotheekbank	27,042	39,159
s'Gravenhaagsche Hypotheekbank	18,788	18,563
Haarlemsche Hypotheekbank	17,002	21,484
Hollandsche Hypotheekbank	17,340	20,909
Hypotheekbank voor Nederland (Algemeene Waarborg Maatschappij)	15,839	19,326
Maastrichtsche Hypotheekbank	10,153	11,979
Maatschappij voor Hypothecair Crediet	12,500	18,885
Nationale Hypotheekbank	46,255	44,547
Nederlandsche Hypotheekbank	28,999	38,535
Rotterdamsche Hypotheekbank	48,666	42,601
Utrechtsche Hypotheekbank	25,996	31,286
Veendammer Hypotheekbank	4,327	12,811
Westlandsche Hypotheekbank	27,827	32,105
Zuider Hypotheekbank	7,802	12,471
Zuid-Hollandsche Hypotheekbank	20,963	20,333

H. M. R. L.

UNITED STATES

1. THE IOWA FARM CREDIT CORPORATION — ANDREW (I. A.): *Iowa's Farm Credit Plan. The Banker-Farmer*. Vol. VIII, No. 6 Champaign (Illinois), July 1921

In order to improve the marketing of farm products and to relieve the financial stringency which periodically disturbs Iowa farming and banking business, the Iowa Farm Bureau and the Iowa Bankers' Association formed, early in 1921, the Iowa Farm Credit Corporation. The Corporation has an authorized capital of five million dollars, and at the last Legislature the banking laws were amended to enable state and savings banks and trust companies to invest in the stock of the Corporation up to 10 per cent. of their capital and surplus.

The working of this scheme may be illustrated as follows: the farmer, having stored his produce in a properly licensed elevator or warehouse, takes the receipt to his local bank, who will advance him up to 75 per cent. of the market value of his produce. The bank may then endorse the note and rediscount it with the Corporation, thus getting its money to lend to other farmers under similar conditions. Or if the farmer desires, he can go straight to the Corporation for his loan, or the bank may act as the agent for the Corporation. In any case the note signed will be the regular collateral note which will provide that the margin of safety in regard to the value of the produce will be kept at all times, or the produce sold. The Corporation may then put up these notes with an approved trustee and issue debentures, up to the maximum value of the notes, and sell them in any part of the country. It thus receives its money back and may relend its capital to the farmer as often as it can sell its debentures. Such debentures have four forms of security, the capital stock of the Corporation; the farmer's personal obligation; the warehouse receipt and the produce represented by it; and the bank's endorsement and complete responsibility.

W. E. H. L.

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2. THE AMERICAN LIVE STOCK LOAN POOL. — *Northwestern National Bank Review*, Vol. XIII, No. 6. Minneapolis, September 1921.

The pressing need of the American live stock loan pool (1), which amounts to \$50,000,000 was demonstrated by the flood of requests which poured in immediately the fund was established. Within the first week, before a settled office system could be established, applications for loans were accepted for a sum amounting to 8 per cent. of the total amount of the pool. By 23 August 1921, about six million dollars had been lent or promised. The head-quarters of the enterprise, the Stock Growers' Finance Corporation, have been established in Chicago, and advisory

(1) See our issue of December 1921.

committees have been formed in the states where the demands for such loans chiefly originate, for the purpose of effecting greater speed and safety in making advances.

Loans are made to stock growers only through local banks or cattle loan companies which are familiar with their credit standing. Except as specified below, these loans are made for sums not less than \$5,000, on a basis not to exceed 75 per cent. of the value of the live stock (cattle or sheep), and must be accompanied by a detailed report of a competent inspector as to the animals offered for security. The one exception to the rule of \$5,000 as the minimum loan is that advances made on cattle for fattening will be accepted for amounts as low as \$2,000. The borrower's note, endorsed by the bank or loan company submitting it, must be accompanied by a certified copy of the original chattel mortgage securing it, a financial statement of the maker of the note, and an abstract of the chattel mortgage records showing that there are no conflicting mortgages on file. All loans must be eligible for rediscount with the Federal Reserve Banks. Maturities are stipulated to be six months or less, but these will be extended or renewed for periods of six months, the entire period not to exceed thirty months from the date of the loan. State banks must not submit loans of a size exceeding 10 per cent. of their paid-in capital and surplus, though in some cases where the capital stock of a bank has not been sufficiently large, guarantees by officers, directors and stockholders will be accepted in lieu of the endorsement of the bank. Applications must be submitted to the advisory committee in the state where the application for the loan originates.

A great many loans on stock cattle for amounts below \$5,000 have been submitted but have not been considered. The placing of the minimum at this amount has caused some adverse comment. The reason given is the need of extending the greatest possible relief in the shortest time, and the inability of the organization, which is being conducted as economically as possible, to deal with the flood of small applications. The amount of the pool is not sufficient to rehabilitate the industry, but the pressure is being relieved where it is greatest. Many banks which have never before handled live stock loans are joining the movement. It is said that the organization has already prevented many stock cattle needed for breeding purposes from going to market.

W. L. H. L.

URUGUAY.

THE APPLICATION OF THE LAW RELATING TO AGRICULTURAL PLEDGES —
DECRETOS: ESTABLECIDOS EN LA INSPECCIÓN NACIONAL DE GANADERÍA Y AGRICULTURA
UNA SECCIÓN DENOMINADA "ECONOMÍA Y CRÉDITO RURAL". *Diario Oficial*, No. 4,295.
Montevideo, 18 June 1920 — *La Propaganda Rural*, Year XIX, Nos. 144, 451, 456.
Montevideo, 1921.

In earlier issues (1) mention has been made of the Law of 21 March 1918, establishing a system of loans to farmers in Uruguay granted on

(1) In the *International Review of Agricultural Economics*, August 1918, p. 661, and January-February 1919, p. 81.

pledge of produce or goods, and arranging the appropriate form of agreement. This law had for some time past been the subject of many anticipations on the part of farmers and stock-breeders, and we have already drawn attention to its importance as a credit system with particularly smooth working, and one that facilitates the obtaining of credit needed for agricultural industries, and renders possible the circulation of a mass of capital that would otherwise remain stagnant and unproductive. The Bureau of Economy and Rural Credit, instituted by the Law of 18 June 1920, as a section of the National Inspectorate of Stock-breeding and Agriculture, supplies data as to the working of the law of agricultural pledges. This Bureau collaborated with the Bank of the Republic by giving technical advice in regard to the putting in force of this Law and of the Regulations for its application, and offered its services in the matter to other credit institutions, the rural banks, etc. In virtue of one of the powers conferred on it by the law that constituted it, the Bureau is moreover engaged in the organization of the loan system, in the study of agricultural credit in general, and more especially in credit on the security of rural movable property.

As we have already stated in our earlier articles, the Law of 21 March 1918 conferred the power of making loans on the Bank of the Republic, on other credit institutions, on business establishments keeping their books on a regular system, and on the rural banks.

The same year a new Decree dated 18 June arranged for the gradual application of the system and limited the number of the lending institutions to the credit institutions only, and to private business houses with books registered in the department of Canelones.

The Bank of the Republic, in agreement with the Section of Economy and Rural Credit, next decided to classify the credit operations according to the kind of goods pledged. In conformity with Article 3 of the Law of 21 March 1918, these may be as follows :

- (a) Live stock and animal produce.
- (b) Movable property employed in rural operations ;
- (c) Fruit of any kind, provided it is of the same agricultural year as that in which the agreement is made, whether ungathered or picked, as well as timber, mineral products or any products of the national industry.
- (d) Machines and implements for agricultural work.
- (e) Implements for manual or factory work.

As regards live stock, a further classification has been made :

- (a) Live stock in general.
- (b) Heifers of 18 months or over.
- (c) Pure bred bulls of 18 months or over.
- (d) Breeding ewes.
- (e) Dairy cattle including calves and bulls of 18 months and more.
- (f) Show breeding stock.

The maximum amount of loans on pledge of live stock is fixed at 20,000 pesos for fattening stock, 5,000 pesos for milk-cattle, and 50 per cent. of the insured value for pure bred breeding stock.

This kind of loan immensely facilitates the purchase of cattle by the farmers; in fact the purchaser in want of animals for his farm can obtain them at once, giving as security for his debt a pledge on the animals themselves. If young animals are purchased the debtor can sell them as soon as they are fattened and discharge his debt, capital and interest, to the creditor, for whom the animals have been sufficient guarantee in themselves during the time.

As regards loans exclusively agricultural, the directing body of the Bank up to now only grants them on cereals, fruit in store, and ungathered fruit: they are designed to facilitate harvest operations, threshing, etc.

The First Loans Granted. — The first loan on the security of an agricultural pledge, registered in Uruguay, was granted by the Bank of the Republic to the rural colony of San Javier. During the last few months of 1920 loans on agricultural pledge were granted to various official institutions.

On 13 December 1920 the first loan secured by the pledge of live stock was granted to private persons, so that loan operations involving live stock may be said to have begun to develop at the beginning of 1921: they have noticeably increased in extent in proportion as this system of credit has become known and appreciated in the Republic.

Interest at 7 per cent. was stipulated in the registered agreement for loans on the security of agricultural pledges. In one agreement only was a rate of 6 per cent. stipulated, and in another 6 1/2 per cent. but in others cases the rate was 7 per cent.

A New Bill to Provide for a Larger Extension of Loans. — The Section of Economy and Rural Credit, which has taken a most active share in the work of developing this new form of credit, has made a study of the question of extending it further in connection with stock-breeding and more especially with the dairy industry, an industry of capital importance in the Republic, where live stock still forms the main source of wealth.

It is thus proposed to grant credit to small stock-breeders and cultivators, not only for the purchase of dairy cattle, but also for their upkeep in suitable localities. As far back as 1911, at the Dairy Industry Congress held at Montevideo, attention was called to the importance that would attach to the establishment of a form of credit designed to suit dairy farmers for construction of milking-pens or sheds, for purchase of the utensils required for butter making, etc. We may note that dairy cattle and their calves represent a special form of security, equally for the creditor, who knows that these animals represent permanent capital in rural economy, as for the debtor, who can rely on being able in due course to repay the borrowed capital out of the profits on the sale of the milk as well as to pay the interest on it. Here may be specially noted a Bill put forward by the Section of Economy and Rural Credit, in accordance with which

the Executive would be authorized to guarantee up to 500,000 pesos in loans on pledge granted by the Bank of the Republic and by the other credit institutions, in view of the construction of *granjas*, or sheds where where the cattle can be collected, and of rural dairies.

In this Bill it is proposed that the loans should not ordinarily exceed 5,000 pesos. They might however amount to 10,000 pesos in the event of the borrower being an agricultural engineer holding a diploma recognized by the State.

The Bill also proposes :

(a) That the banks should be authorized to make advances on the security of an agricultural pledge up to 90 per cent. of the value of the pledge, if it is represented by breeding animals, and up to 50 per cent. if the security is agricultural machinery or implements.

(b) That it should be made possible to grant loans of this kind even at the actual time of the purchase or sale of the animals or other goods.

(c) That the lending bodies other than credit institutions should be enabled to increase the loans by 50 per cent. when the borrower is recognized as solvent by the lender and by the office on which it devolves to give the necessary information. In this case the guarantee given by the State would be proportionately increased.

On the interested parties there would only fall the obligation of guaranteeing the appropriation of the loans to the objects specified by the law.

The bill contemplates finally the extension of the same regulations to loans granted to every other kind or rural industry.

Agricultural Pledges and Insurance. — An important innovation that has been introduced into the system of loans on agricultural pledge has reference to the case where the goods constituting the security are insured

The Bank of the Republic has in fact decided that where loans are secured on breeding animals insured in the State Insurance Fund, a loan may be granted on the security of the policy equal to 80 per cent. of the value of the animal.

In its turn, the State Insurance Fund has requested the Rural Sections undertaking cattle insurance to look into the possibility of reducing the premiums. It is true that the conjunction of insurance and loan results in the banks having a much larger field of credit operations better guaranteed, and as a result a wider area of insurance : but it is also true that insurance premiums are at the present time so high, that in addition to the interest of the loan, and the charges for inspection, etc., very heavy annual charges fall on the debtor.

We may note as to this that the current premium varies from 8 ½ per cent. to 10 per cent. of the insured animal, and though this may be considered equitable for certain animals, it becomes on the contrary almost prohibitive for others of much less value, so that the owner is

obliged to limit insurance to the animals intended to be shown or sold at a high price.

A very opportune proposal has been made to draw up statistics of pure bred stock, and thereby to set up a scale of insurance corresponding to the different classes of animal.

Once cattle insurance is re-organized on a more equitable basis, farmers will be able to take fuller advantage of the recent concession made by the Bank of the Republic.

This institution has moreover taken steps to facilitate the warehousing of grain. In view of the fact that the greater number of farmers have no suitable places for storing produce and that at some leading stations there is only a *Mercado de Frutos* or a co-operative depot, the Bank decided to grant loans up to the amount of 1000 pesos to farmers who would store their wheat in a private warehouse approved by the Bank, all the obligations as to the pledge then falling on the custodian instead of the debtor.

To complete the working of the system of loans on agricultural pledge, the system of *warrants* on fruit in store will also be developed: this is a form of credit that has been long desired by the agriculturists of Uruguay.

E. F.

Miscellaneous Questions relating to Agricultural Economy

ECONOMIC AND SOCIAL CONDITIONS OF THE AGRICULTURAL CLASSES

AUSTRIA.

MEASURES TAKEN DURING THE WAR TO MAINTAIN THE SUPPLY OF AGRICULTURAL LABOUR.

By Dr. HERMANN KALLBRUNNER

When the Austrian army was mobilized in August 1914, on the small farms the men called up were replaced by the wives and children of the farmers and even in some cases by their old parents. On the whole, owing to the extraordinary devotion with which these threw themselves into the work, the replacement was successful. Difficulty however was experienced in regard to the heavier kinds of work, usually performed exclusively by men, such as reaping, and also as to the work of certain seasons when it is customary to engage extra help. Hence it was necessary to have at command, at least for certain times of the year, some further resources in the way of labour.

The large farm, depending essentially upon hired labour, was in a much more serious position than the small farm at the outbreak of war. Owner, manager, farm-servants, day-labourers were often all withdrawn. Moreover many women whose services had previously been available could no longer give them as they had to work on their own land. Further as they were in receipt of the government allowances (1) paid to the wives and families of all the men called up there was no strong inducement to find other means of subsistence.

At first the large farms benefited, though only in a measure, by one special circumstance; the immense surplus of labour in the East was unable to emigrate, while the refugees from the Russian invasion of Eastern Galicia found their way into Western Austria and were

(1) In accordance with the Law of 26 December 1912, *Reichsgesetzblatt*, No 237.

induced to take up agricultural occupations, so far as they were not called up for military service.

§ I. THE HARVEST COMMISSIONS.

With the view of meeting so far as possible the difficult situation in which agriculture was placed, the Government issued a series of enactments.

By a Decree of the Ministry of Agriculture of 5 August 1914 (*Reichsgesetzblatt*, No. 200), all the communes of Austria in which farming is carried on were directed to set up Harvest Commissions (*Erntekommissionen*). These were to consist of three to seven persons, resident in the commune and of proved integrity, among them ministers of religion, teachers, and officials of the organizations representative of agricultural interests, meeting under the chairmanship of the burgomaster, to take all the measures necessary for securing the normal course of agriculture. An important share in the provision of the labour necessary was to devolve on these commissions. They were expected to organize mutual assistance amongst the owners or occupiers of land, and to direct along such lines as would lead to their fullest utilization, both the labour and the materials available in a commune or obtainable from without, so as to concentrate both labour and materials where the need was greatest or most urgent, always giving preference to those farms which in consequence of the calling up of the owner or manager required special consideration or assistance. In short the commissions, in the interest of the execution of all kinds of agricultural work, had the duty of ascertaining, on the one hand, the labour and materials available within the area of the commune, and on the other, the farms standing in need of help, and of assigning to these latter so far as their requirements were not met from voluntary sources, the labour, the draught animals and the implements necessary. All persons of either sex resident in the commune, except a few exempted for special reasons, were obliged to lend their services. The right to take remuneration for work so given was recognized only in the case of persons who depended for subsistence on receiving a daily wage or remuneration in some form or other.

As has already been mentioned, a certain number of women refused to do agricultural work, though their refusal was not justified by any considerations of health or household duties. As this involved a reduction in the supply of labour and as their refusal was calculated to encourage others similarly to object to work, the provincial authorities were directed to take the strongest possible measures, acting through the Harvest Commissions and in accordance with the Ministerial Decrees of 5 August 1914 and 15 February 1915 (*Reichsgesetzblatt*, No. 200 and No. 38) to ensure that all persons, so far as health and family reasons permitted, should be made available for agricultural work.

§ 2. LABOUR EXCHANGES.

Immediately after the outbreak of war, the Government began to take an active part in the placing of labour. The Decree of the Ministry of Agriculture of 7 August 1914, Z. 37,165, enacted that District Labour Exchanges should be set up in all administrative districts, and Provincial Labour Exchanges in all the provinces of the Empire. At first the placing of labour was entrusted to voluntary unpaid workers. The Provincial Exchanges were recommended to delegate their functions as far as possible to institutions already existing in the principal towns of each province for the placing of labour. At Vienna, as the result of the common action of the Government offices concerned, all the institutions of the sort were co-ordinated under a central office and placed under the Commission for Social Welfare (*Kommission für sozial Fürsorge*). The Labour Bureau of the Agricultural Society was affiliated to this central office. Thus the closest possible co-ordination was ensured between all these offices, the District Labour Exchanges and the Harvest Commissions. In order to facilitate the arrangements for the placing of labour, persons proceeding to distant centres were enabled to travel at reduced rates.

Comparatively little use was however made by agriculturists of these organizations, which were also intended for the supply of industrial labour. This was, on the one hand, in accordance with the traditions of agriculture where labour is always engaged personally and without intermediary, and, on the other hand, was the natural result of the utter impossibility of creating as it were by the stroke of a pen an organization of so comprehensive a nature.

According to the Austrian Statistical Year-book, there were in 1916 the following results :

Month.	Offers of employment for agricultural labourers or woodmen	Percentage (in relation to offers) of Applications	of Engagements
January	5,091	66	40
February. . . .	4,723	63	37
March	5,064	70	38
April	6,702	52	58
May	4,717	65	35
June	6,092	54	46
July	7,126	46	53
August	7,147	75	50
September . . .	18,405	84	73
October	7,398	49	63
November . . .	4,480	82	52
December, . . .	4,249	56	51

A larger measure of success attended the administrative efforts in respect to the employment of refugees, disabled service-men and prisoners of war, of which we shall shortly have occasion to speak.

§ 3. AGRICULTURAL WORK OF SOLDIERS TEMPORARILY DETACHED.

It very soon became clear that no great benefit could accrue to agriculture from the mere provision of labour in the absence of those capable of directing it. In order to meet at least partially these pressing requirements and to give those responsible the opportunity of attending to the more urgent and important farm-business, farmers were granted from the spring of 1915 short periods of leave coinciding so far as possible with the seasons in which the farm-work most needed their oversight (spring cultivation leave, harvest leave, hay-making leave, etc.). Naturally the granting or not of this leave was decided by the military situation as it affected the commands or units to which the agriculturists were attached. Thus soldiers and even officers of the reserve belonging to units holding positions or bridge-heads not threatened by the enemy obtained leave in large number, and so also did workmen, drivers, etc., called up in accordance with the Military Service Law and rendering territorial service.

Those serving in the line seldom obtained leave. Those undergoing hospital treatment did not usually obtain leave, and harvest leave was granted to farmers and farm-labourers only if they were at the time physically fit for agricultural work — or in the case of farmers to supervise it — and always conditionally on there being no risk of endangering recovery of complete fitness for military service.

Efforts were made so to arrange the grants of leave that all soldiers had it in turn. Leave was granted first to farmers, in accordance with their special circumstances, and then to members of their families ordinarily engaged in agriculture, and lastly to agricultural labourers. Account was also taken, so far as possible, of local circumstances, in such a way that leave was first given to those coming from districts where the harvest was earlier and afterwards to those coming from districts where the crops ripened later.

Applications for leave could be made directly by soldiers to the military authorities or by their relatives through the medium of the political authorities. The granting of leave was done by the commandants of the division, in accordance with definite instructions. The period for which leave was granted to farmers was originally, as for other classes of soldiers, usually two weeks. Later on they were granted leave for a period of three or four weeks and from 1916 even five weeks. From March to April 1916, 898,969 men went on leave specially granted for agricultural work.

In some reserve centres and rest camps it happened that after leave had been granted to all who had a right to it, there still remained soldiers capable of doing agricultural work. At the request of the political authorities of the neighbouring centres, these men were detailed in gangs of about 20 to particular communes or to particular farmers (naturally with the provi-

sion of immediate return to their unit in the case of emergency). These gangs, always under the command of a non-commissioned officer, remained as might be required but for a maximum of two or three weeks on a farm, and received from the farmer in addition to board, a remuneration corresponding to the daily wage obtaining in the locality.

The labour depots near the military commands (reserves consisting of voluntary workers, territorials and refugees, intended to meet the labour requirements of the combatant army) could also furnish supplies of labour for agriculture. From March to August 1916, 161,015 men in all from these depots were put at the disposal of the communes to render assistance in agricultural work.

Finally in individual cases meriting special consideration, on application being made to the political authority, temporary exemptions from military service were also granted to farmers and to individuals qualified to undertake agricultural work as employees or wage-earners.

Requests for exemption had to be made by the relatives. They had then to be confirmed by the communal offices, examined by the *Landwehrrevidenzbeamte* of the district command, then checked by the police, approved by the head of the district command and presented to the State Mobilization Department. From this the application was passed through the medium of the Ministry of Agriculture to the Ministry of War, and finally after approval, which was usually given in cases meriting special consideration, to the army corps. Exemptions could not be granted to those at the front, nor to those for any reason indispensable. The period of exemption was fixed by the Ministry of War. Requests for extensions of exemption were generally agreed to. Police supervision was exercised in respect to the work done by the exempted persons as by those simply on leave, and those who did not work were immediately recalled. In the granting of these exemptions special regard was had for skilled labour of an indispensable kind, such as attendants or mechanics in charge of agricultural machinery, especially threshing machines, steam-ploughs, etc., drivers of motor-ploughs, and in certain cases smiths and cartwrights. The length of the exemptions was proportionate to the local needs.

Where it was not possible to release the responsible farmer or manager of a farm, such farm was given precedence in the assignment of other supplies of labour.

§ 4. THE UTILIZATION OF THE WORK OF WOUNDED MEN IN AGRICULTURE.

Of special importance to the agricultural labour supply were the measures taken by the Government for restoring to their original occupations, under the most favourable conditions possible, wounded and disabled men. Efforts to bring this about were regarded as among the most important and urgent tasks of the rehabilitation and had the more significance for agriculture from the fact that it had been the occupation of the majority of the disabled men: a natural consequence of the high percentage of enlist-

ments among agriculturists and of the heavy losses of the infantry, in which most of the farming class were enrolled.

The guiding principles of the treatment of the disabled were first laid down by the Decree of the Ministry of the Interior of 15 February 1915, Z. 3,501, then in the Order of 29 August 1915 (*Reichsgesetzblatt*, No. 260), relating to the after treatment and practical instruction of the sick and wounded (1).

As a preliminary step, by the decrees of the Ministry of the Interior of 23 February 1915, Z. 411, and 27 June 1915, Z. 12,641, there were instituted "Provincial Committees for the Assistance of Discharged Soldiers" (*Landeskommissionen zur Fürsorge der heimkehrenden Krieger*) with a sphere of work falling under three divisions: (a) special treatment of the disabled; (b) provision for needs and instruction; (c) finding of employment.

(a) As far back as 1914 the systematic treatment of the disabled engaged serious attention and was in particular the subject of profound professional interest. On the proposal of Dr. Spitzky, whose reputation in the matter of such treatment stood high, the military administration even in November 1914 conceived the idea of founding a large orthopaedic hospital specially designed for the purpose and workshops in connection with it. On 20 January a hospital was opened at Vienna with 1,000 beds, and in a very short time its capacity was so increased as to provide accommodation for 3,600 men. Other hospitals in the principal towns of the provinces were successively established. In these (2) the disabled were subjected to a systematic orthopaedic after-treatment with the aim of regaining the full use of their limbs; orthopaedic apparatus was prepared, artificial limbs were tested and given out, and operations were undertaken in cases where the wounds had been wrongly treated and a prejudicial condition had arisen which it was thought possible to remove. Special account was naturally taken of the bearing of all this on agriculture. Thus a special belt for farm workers (*Bauerngürtel*) was invented and turned out in large numbers at one of the special workshops for the manufacture of artificial limbs. Later on were devised the farmers' arm (*Bauernarm*) and the so called "*Kellerhand*".

The mechanical aids supplied to agriculturists were always very strong so that they would be of real use to them, and would be serviceable in all circumstances, places and positions. They were never given artificial limbs of complicated and delicate construction, unsuitable for the requirements of farm work.

(b) The medical treatment of the disabled was closely associated with their re-education. This in the first stages of the cure consisted only in making slight movements of the affected part (the lines of this re-education

(1) See *MILITARVERSORGUNG UND INVALIDENFÜRSORGE FÜR MANNSCHAFTSPERSONEN*, reprinted from *Blättern für das Armenwesen der Stadt Wien*, Vienna, 1915, and *Mitteilungen des k.k. Ministeriums des Innern über Fürsorge für Kriegsbeschädigte*, published July 1915 by the Government Printing Office.

(2) See SPITZKY: *Unsere Kriegsinvaliden. Einrichtungen zur Heilung und Fürsorge*. Vienna, 1915.

tion are embodied in the Decree of the Ministry of the Interior of 15 June 1915, Z. 9,389). Continued activity of this kind led on to more effective movements.

At a more advanced stage of the cure, the disabled men belonging to the agricultural classes were given once more the opportunity of handling agricultural implements (1). A philanthropic large landowner, Baron Drasche, made available for re-education in farm work a part of his estate, Ebreichsdorf, near Vienna: work was done there by disabled men for four hours each day while for the remainder of the day they rested or underwent treatment. In return for their services, they received prizes in money.

Those who had lost one arm at once obtained instruction in writing with the left hand (2).

Endeavours were always made to restore the disabled to their own occupation.

It was sometimes possible to compensate for the loss of certain physical powers by improving the education. Persons of sufficient intelligence and possessing a certain groundwork of knowledge were thus sent to agricultural schools, many such schools being established for that very purpose (3).

As a rule only a few disabled were admitted at one time to the courses at these schools, so as to give opportunity for individual and intensive instruction, adapted to the special requirements of the students. Among other courses were the following which were repeated at intervals: in Vienna, a course for disabled officers at the Agricultural College and a course in bee-keeping; at Fiedelhof, a six weeks' course in agriculture; at Retz, a course of horticulture and viticulture lasting five months; at Mistelbach, Feldsberg and Krems, similar courses lasting six months; at Oberhollabrunn and Obersiebenbrunn, courses in general farm-work lasting five months; at Oberhollabrunn, a two months' course in dairying; at Tullen, courses in agriculture and forestry lasting six months; at Phyra, a three months course in alpine agriculture; at Waidhofen and Hollenstein, courses in forestry; at Traismauer, five month courses in pisciculture; at Komenburg, one month courses in growing of forage crops and in stock-breeding, and at Mödling three month courses in fruit and vegetable growing.

In the Tyrol courses were held at Rotholz and at Platten on the Adige. In Bohemia courses were held at 17 German and 22 Czech schools, among these being courses of special instruction in land-improvement, in flax and hop cultivation, in treatment of meadow land, in milling and distilling, etc. Courses were also held in Moravia and Galicia.

(1) See MAIER BODE: *Der Arm und Beinbeschädigte in der Landwirtschaft*. Leipzig, 1917.

(2) See STILCKE: *Einarmige in der Landwirtschaft*. *Mitteilungen der Deutschen Landwirtschaftsgesellschaft*, No. 1, May 1915. — KUNSSBERG: *Einarmfieber*, ein Lehr- Lese- und Bilderbuch für Einarmige. July 1915.

(3) See: LANDWIRTSCHAFTLICHES UNTERRICHTSWESEN UND INVALIDENFÜRSORGE VOM LANDESAUSSCHUSS DES HERZOGTUMS OESTERREICH UNTER DER ENNS. Vienna, 1916. — DIE FÜRSORGE DES N. Ö. LANDESAUSSCHUSSES FÜR DIE KRIEGSVERLETZTEN LANDWIRTSCHAFTLICHEN BERUFS. Vienna, 1918. — MARSCHNER: *Fürsorge für Kriegsbeschädigte in Böhmen*. Prague, 1916.

Of the greatest importance to the farmers were the courses for instruction and training of men in the use of agricultural machines. Thus at the State School of Industry at Prague a course was held in the training of drivers of motor-ploughs; at Clayton and Shuttleworth's factory in Vienna one for the training of mechanics in the use of the most modern and complicated agricultural machinery. As opportunity offered, disabled men received instruction at these courses who for some reason or other were no longer fit to carry on their former occupation, and who were anxious for agricultural employment. For these men the way was made easy to remunerative occupation, but naturally only when there was ample guarantee of their being physically fit for the occupation and when there was reason to suppose that they would be able to find a suitable position (1).

Many cases occurred in which it was not possible for disabled men who had formerly been engaged in agriculture to return to it. Such men were as far as possible given a training in kindred occupations in one of the workshop schools for the disabled where 31 trades were taught.

(c) With a view to establishing the most complete system possible of finding employment for those disabled men who were unable to return to their original occupations, an official organization was created by Decrees of the Ministry of the Interior dated 15 May 1915, Z. 22,924, and 28 June 1915, Z. 33,547. This conformed to the general plan of Government Labour Exchange offices, but differed in that it undertook the special task of finding suitable openings for disabled men. It aimed at preventing soldiers who returned to civil life with diminished earning capacity from being reduced to ask for charity — an aim in which it had the support of the various aid societies. Every effort was made to pass them as quickly and as effectively as possible into the different occupations. Under its auspices a periodical was published in Vienna, appearing once or twice monthly, entitled *Der Oesterreichische Arbeitsnachweis für Kriegsinvaliden*. Branch organizations existed at the different provincial Labour Exchanges of the principal provincial towns and at the district Labour Exchanges. During the period 12 June 1915 to 31 December 1917 the Vienna office notified 25,947 vacant situations and effected engagements in 6,69 cases.

By these many and various measures, the Government on the whole succeeded, partly even during the war, in restoring to agriculture the labour of many who, thanks to suitable mechanical aids, and to a fuller technical training, could in spite of their disabilities render services of equal value with their former ones. Without the trouble that had been taken in the matter, this labour would have been, at least in great measure, lost to agriculture.

In connection with the after-care of disabled men who had been formerly employed in agriculture, mention should also be taken of the extensive plans for home colonization undertaken by the Government, with a

(1) DEUTSCH: Aerztliche Berufsberatung Krieg-beschädigter im Rahmen der Arbeitsvermittlung. Vienna, 1917.

view to a permanent and satisfactory regulation of the agricultural labour question. On the basis of detailed enquiries (1), the project was formed of establishing small homesteads (*Heimstätten*) for disabled service men and for the families of men who had fallen in the war. The colonists were to have a cottage and a piece of land annexed to it, and could acquire ownership by payments on exceedingly favourable terms. The farms were to remain under the advisory control of agricultural colleges and were to be managed in such a way that the owner could undertake work for a daily wage and so eke out the produce of the farm which would not suffice for his maintenance. The intention was at one and the same time to improve the social position of the disabled service men and in some measure at least to remedy the shortage of houses and of labour on the land (2). The economic crisis of the last years of the war and the issue of the war itself have however prevented the carrying into execution of any of these projects.

Among the measures intended to attract highly skilled labour even from the urban centres, there must be mentioned the preliminaries, which received cordial support from the Government for the organization of farm apprenticeship already earlier advocated by Mischler (3), the well known pioneer of Labour Exchanges. In this field the *Deutsche Landwirtschaftsgesellschaft für Oesterreich* did good service with the "apprentice centres" (*Lehrlingsstellen*) established under its auspices (4).

§ 5. PRISONERS' LABOUR.

Even before the war the labour of prisoners from the Austrian prisons had been made available for agricultural undertakings, under certain definite conditions.

As soon as the war broke out, the Government endeavoured to detail for agricultural labour a larger number of prisoners. With this in view two methods were adopted. On the one hand by the Order of 7 August 1914 (*Reichsgesetzblatt*, No. 207) it was enacted that with certain provisos, a shortening of the term of imprisonment might be permitted if the prisoners' labour was of urgent national importance, and if the re-

(1) See VOGEL: Die Agrarstatistischen Grundlagen einer Innenkolonisation und Erhöhung der landwirtschaftlichen Produktivität in Oesterreich nach dem Kriege, in *Statistische Monatschrift*, 1917. Gutachten für Vorbereitung einer Wirtschaftsheimstättenorganisation.

(2) RAUCHBERG: Kriegerheimstätten. Vienna, 1916. — SPATZEL: Die Erziehung der landlichen Kriegerwaisen. Prague, 1917. — MARCHET: Die Versorgung der Kriegsinvaliden und ihrer Hinterbliebenen. Warendorf, 1915. — RIEDL: Kriegsinvalidensiedelung. In: *Der Arbeitsnachweis*, 1918. — KASTNER: Die landwirtschaftlichen Schulen und die Invalidenfürsorge. In: *Land- und forstwirtschaftliche Unterrichtszeitung*. Vienna, 1915, Parts III and IV. — VOGEL: Innere Kolonisation und Landarbeiterfrage in Oesterreich nach dem Kriege. Berlin 1918.

(3) See *Der Arbeitsnachweis*, 1909 and 1912.

(4) PROGRAMM UND LEITSÄTZE DER LANDWIRTSCHAFTLICHEN LEHRLINGSTELLEN IN WIEN. — GESSMANN: Zurück zur Scholle. Vienna, 1919.

remainder of the sentence still to be undergone was less than six weeks. On the other hand measures were also taken with a view to utilizing in a larger proportion for farm work prisoners who could not be so released. By Decree of the Ministry of Justice of 8 August 1914, Z. 26,889, the tribunals were requested to put through on every occasion when possible requests for prisoner's labour coming from agricultural districts, that is to say within the limits allowed by the number of prisoners and warders available. They were further authorized for the remainder of 1914 to agree to the formation, within their own jurisdiction, of small squads (from 10 to 15 men) who might spend the night away from the prison or penal institution. These powers were later extended for the following years. In consideration of the exceptional situation, the Ministry of Justice ruled that in cases meriting special consideration, prisoners' labour would be supplied in return for the mere reimbursement of the expenses incurred in the matter by the State.

Since there were frequently not enough warders for these labour-squads, thus rendering their utilization in agriculture impossible, by the Decree of 19 August 1914, Z. 28,053, the tribunals were requested to detail for prison warder service men from the *Landsturm* and this was allowed in very urgent cases on the basis of an agreement between the Ministries concerned. By Decree of 31 March 1915, Z. 9,413, the powers of the tribunals in respect to prisoners' labour were extended: in particular greater regard was paid to the agricultural status of the prisoner, whether he had been a farmer or an ordinary labourer.

By Order of 16 June 1916 (*Reichsgesetzblatt*, No. 183) the penitentiaries were authorized to allow a shortening of the sentence in the case of prisoners serving a sentence of two years or less if their work was of national importance. By Decree of the Ministry of Justice of 28 April, Z. 13,915, the conditions for granting remission of sentences were rendered still less stringent. In particular they admitted of the possibility of remission in the case of those serving sentences of more than two years, subject however to an act of grace on the part of the Emperor. Of course this could only be given in the case of prisoners who were not likely to attempt to escape, and it was also made a condition that the prisoner was not undergoing a sentence longer than three years. Statistics are not available as to the number of persons who in accordance with these arrangements became available for agricultural work. But it cannot have been very large in proportion to the number of farms seeing that prisoners' labour could only be quite exceptionally utilized by individual farmers.

§ 6. EMPLOYMENT OF SCHOOLCHILDREN IN AGRICULTURAL WORK.

In Austria school boys and girls between the ages of 11 and 14, and even younger, are frequently employed in agricultural work. It was natural that during the war their work would be even more generally employed as a means of meeting the serious shortage of labour: this however could not come about except by a marked infraction of the law relating to the

regular instruction of all children between the ages of 6 and 14 years. To meet the wishes of the rural population the Ministry of Public worship and of Education requested all the provincial education authorities to allow the greatest possible latitude to requests for leave of absence from school and temporarily to recognize the employment of children in farm work as sufficient excuse for non-attendance at school, giving special consideration to families, members of which were on active military service.

In 1915 these instructions, which at first applied only to 1914, were again put into force and amplified. In purely rural districts, instruction could be much curtailed particularly in the upper classes, and the school year could be closed in advance of the proper date for doing so. The principle was laid down that the interests of the school instruction must give way to those of the cultivation of the land. Authority to excuse from school attendance children required for farm work, at first only granted in regard to schools of the distinctly rural type, was extended to elementary schools in cities and market-towns, and then to the high schools. Similar instructions were issued to the managing bodies of the intermediate schools. Recommendations were also issued to these latter, to make special allowance in examinations of all kinds for this employment of the scholars in farm work. A Decree of the Ministry of Public Worship and of Education of 10 March 1916, Z. 6,158, granted fresh facilities.

The scholars in nearly all cases worked on their parents' farms, or on those of near relatives, rarely on those of strangers. It came however to this last for them in the latter years of the war, chiefly so as to obtain food, which was agreed on as payment in lieu of money and was much more acceptable in consequence of the prevailing scarcity of everything.

Bands of juvenile workers were also formed, chiefly in the earlier years of the war, by local education authorities, and put at the disposal of communes for agricultural purposes, the scholars being distributed as the work required.

§ 7. THE SHARE TAKEN IN AGRICULTURAL WORK BY REFUGEES.

Military events frequently necessitated the evacuation of Austrian territory. By the Imperial Order of August 1914 (*Reichsgesetzblatt*, No. 213), arrangements were made for the care of persons who in such circumstances might be removed from their homes, and for the regular utilization of their labour, in so far as they were capable of engaging in productive work. In order to find employment for them use was made of the Labour Exchanges already mentioned, and by means of these organizations refugees fit for agricultural work were in the first place drafted, some to specially prepared harrack centres, some after being duly classified as to nationality and religion, into various communes at the State expense. Thence they were distributed among the different farms. In April 1915 about 600,000 refugees were being maintained by the State (1). All this admin-

(1) *TÄTIGKEITSBERICHTE DER HILFSKOMMITTEES FÜR DIE FLÜCHTLINGE.*

istration was rendered considerably more easy by the fact that the persons dealt with were chiefly agriculturists or trained to agricultural work. Among them were a number who had been in the habit for many years of going as seasonal labourers to one of the western provinces and so were comparatively familiar with the conditions of life in their new surroundings.

Among the institutions for supplying labour, the agricultural organizations were the most active and in this work they received the fullest possible support from the Government.

The *Landwirtschaftsgesellschaft* of Vienna should be especially mentioned. This society not only undertook the necessary quarantine measures but also made it its special business to replace in their former situations those labourers who had previously been in the service of an Austrian employer. The utilization of these seasonal labourers was effected on a considerable scale (1) but almost exclusively on the large estates where the employment of labourers speaking other languages had previously been not unusual.

But the number of refugees absorbed by the agriculture of western Austria diminished in the course of the war, on the one hand as a consequence of the constant raising of the age for military service, on the other hand from the fact of the re-occupation of Galicia. The refugees were gradually recalled to their own homes to repair the damage wrought by war in their own fields. This also practically put an end to the emigration of agricultural labour from Galicia, to the great benefit of agriculture. Thus in the season of 1915-16 only 26,000 passports were issued by the *Deutsche Feldarbeiterzentrale* to Austrian citizens as compared with 291,708 in the period 1910-11. The remainder, nine-tenths (not including persons liable for military service) were retained to play their part in the economic life of the country.

To meet certain inconveniences that arose, the employment of Galician labour was regulated in 1917. Those making application for such labour had to obtain authorization, make proper hiring agreements and submit them for inspection by the Government authorities, and to take strict quarantine measures in regard to transport.

The hiring agreements, in the interests of both parties, were to include:

(1) A wages scale, showing the rates of wages for men engaged in ploughing and cultivation, for reapers and for other labourers, for women, for youths not fully grown and for girls, differentiating also between the wages to be paid in the period preceding the harvest, during the harvest, and in the period following the harvest.

(2) The proportion of remuneration in kind: this could not be kept at the pre-war level owing to the shortage of many kinds of food, but it had to be sufficient in all cases.

(3) The declaration of the employer that he was prepared to take for every ten labourers, one person who was unable to work (child); this

(1) The *Landwirtschaftsgesellschaft* of Vienna and the *Landeszentrale für Arbeitsvermittlung* of Prague found employment for about 135,000 refugees; of these 60,000 came from the large concentration camp near Gmünd. *Der Arbeitsnachweis*, 1918, Part II.

on account of the unwillingness of the refugees to leave the children alone in the camps.

The distribution of the refugees in the commune was as a rule left to the local Labour Exchanges, to the Harvest Commissions, etc.

§ 8. DISTRIBUTION AND EMPLOYMENT OF PRISONERS OF WAR.

Somewhat different counsels prevailed at different periods of the hostilities as to the right mode of distributing and utilizing prisoners of war.

In the first instance, the Government arranged for their labour to be available only in those districts where there was no unemployment. At the beginning of the war owing to the stoppage of many industrial enterprises there was very marked want of employment for certain kinds of labour. In consequence the prisoners had to be put to work for which no special qualifications were required, such as construction of roads, railways and canals, re-afforestation, improvement of alpine pastures and the like and finally harvesting.

The conditions under which the Ministry of War placed prisoners at the disposal of employers were as follows :—

1. Prisoners of war could only be supplied in gangs of 200 men, with a view to facilitating proper guarding and the finding of suitable board and lodging. Further, in order to ensure the full utilization of this supply of labour, the minimum number of prisoners of war allotted to a centre might be reduced from 200 to 30 if: (a) the employer would himself provide for guarding them; (b) take the responsibility that they would be adequately guarded; (c) undertake any expenses arising out of the recapture of escaped prisoners.

2. For guarding prisoners of war there might be utilized, besides members of civilian corps armed and sworn and members of corps of veterans who were not fitted for other service, also sworn forest rangers and sworn watchmen of fields, woods and vineyards. When persons of this type were not available the so-called "*Bewachungsmänner*" were provided, who had to be sworn in before the political authorities.

3. Board was furnished in accordance with local usage at the cost of the employer. Similarly fuel for prisoners of war and their guards had to be provided free by the employer.

4. As regards work for private individuals, the employer of prisoners of war had to pay to the military administration six hellers per day per person, the payment being made to the military commandant at the place of internment. The employer was also expected to find the remuneration for the work done by the prisoners of war. Two scales were fixed: one of 20 hellers and one of 30 hellers. Further, except when the work was of a military kind, the employer had the option of giving extra pay or extra rations of food, if he thought fit, in return for overtime work, for example during harvesting of crops. When found convenient, for example during hay-making or the spring cultivation, a remuneration on a piece work basis was recommended.

5. If the prisoners of war could not be accommodated at neighbouring prisoners' camps they were to be lodged in guarded premises.

6. Occasional medical attendance was to be provided by the doctors of the commune or others belonging to the district at the expense of the employer: the same arrangement to hold for sanitary inspection of the prisoners.

7. The military commandant, that is to say the commandant of the camps of prisoners of war, was empowered to arrange for their movement in gangs of 30 to 200 men.

8. Applications for the supply of more than 200 prisoners were dealt with by the Ministry of War.

Towards the middle of 1915 about 80,000 prisoners of war were being employed in agricultural work. With the aim of making possible a general utilization of prisoners of war on the small farms also, where by this time they were often treated on the same footing as the labourers who had been called up, the regulations for the supply of prisoners of war gradually became considerably relaxed. To avoid any unfairness arising out of the system of direct applications, whereby one farmer might obtain a large number while another had none, the Agricultural Labour Exchanges undertook the business of distribution of the prisoners (Decree of 6 November 1916, Z. 5,790). For this work a special contribution was made by the employers to the exchanges to cover working expenses so far as possible.

The supreme direction of the distribution of the prisoners of war, equally with that of the gangs of soldiers detached for work and of army horses, was now placed in the hands of the Ministry of Agriculture, one of the higher officials acting as liaison officer between the Ministry and the Ministry of War. Applications for prisoners of war on the part of communes, estates, sugar factories, etc., were to be made direct to Agricultural Labour Exchanges.

The distribution was arranged in accordance with the need for labour, the work to be done, and the likelihood of the farmer himself being able to put in more or less time on the farm either with exemption or with leave.

The prisoners left the concentration camps as a rule in gangs and under the direction of a prisoner non-commissioned officer, who usually also acted as interpreter. Superintendence of the party was entrusted to an Austrian non-commissioned officer with a detachment as guard. Oversight of the prisoners distributed over a district was the business of an officer. This latter was also especially to exercise oversight as to the provisioning, which had to correspond as closely as possible with the food to which the prisoners were accustomed in their own country, as well as to the general treatment and lodging and finally as to the proper utilization of the labour. As a rule there were no complaints. The prisoners of war became an indispensable element in agriculture during the war; in fact along with the women and children of those called up it was they who kept the land in a proper state of cultivation.

Besides their employment in purely agricultural work, the prisoners of war were also turned to account on other works of public utility that

could be undertake at a low cost : for example by their assistance improvements of various kinds were carried out, alpine pasture improvements, embanking of rivers, etc. In the summer of 1915 the authorities in charge of such kinds of work were employing 4,800 prisoners of war in round figures.

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In spite of all the efforts, whether of the State or of those who remained on the farms, it was impossible in the circumstances and with the means available to maintain agriculture at the pre-war level. Hence came about a series of measures calculated to relieve the shortage of labour in agriculture. This was partly brought about by definite efforts to procure draught-animals for field work, and also by placing labour-saving machinery at the disposal of farms. The army had in fact absorbed the majority not only of the men, but of the draught-animals. But subsequently the shortage of raw materials of nearly every kind rendered impossible the production and repair of machines and the want of fuel and of lubricants materially interfered with the use of those existing.

Thus the normal rotation of the crops was altered : the cultivation of products requiring intensive labour, especially that of sugar beet, was reduced, and more extensive cultivation was substituted. The area of potato cultivation for example fell from 93,206 hectares in 1913 to 68,619 in 1918 ; the cultivation of the sugar beet from 17,957 to 8,452 hectares. The number of quintals produced per hectare fell respectively from 81.3 and 224.8 to 41.6 and 196.7 (1). •

Notwithstanding the many provisions made and the efforts of all concerned the problem of the substitution of the agricultural workers called up could only be partially solved in Austria.

(1) ANBAULÄCHEN UND ERGEBNISSE IM GEBIETE DER REPUBLIK ÖSTERREICH IM JAHR 1918, Vienna, 1919. STATISTISCHES JAHRBUCH DES K. K. ACKERBAUMINISTERIUMS FÜR DAS JAHR 1913, Vienna, 1914.

GREAT BRITAIN AND IRELAND.

THE MAINTENANCE OF THE SUPPLY OF AGRICULTURAL LABOUR IN ENGLAND AND WALES DURING THE WAR.

(Continued)

§ 2. SOLDIER LABOUR.

A. General Arrangements for the Release of Soldiers for Work on the Land.

For the hay harvest of 1915 arrangements were made that furlough should be given to a limited number of soldiers (1). The furlough granted to each soldier was not to exceed fourteen days and was to last only for such time as he was actually required for haymaking. The employment of soldiers was subject to the condition that suitable labour could not be found in the locality. Every endeavour would be made to ensure that the men released had been accustomed to farm work, but no guarantee to this effect could be given.

Similar arrangements were made for the autumn cultivation in 1915 (2). In this case furlough was given up to a maximum of four weeks.

General arrangements for the employment of soldiers on farm work at any season of the year were made for the first time early in 1916 (3).

Under these arrangements furlough was given, at the discretion of the Military Authorities and as circumstances permitted, to a limited number of soldiers serving at home who had been accustomed to work on farms. The furlough granted to each soldier lasted only for such number of days, not exceeding four weeks, as he was actually required for the work.

Soldier labourers were not supplied unless it was impossible to obtain suitable labour in the locality. Applications from farmers who desired to employ soldier labour were made to the Board of Trade Labour Exchanges by whom they were transmitted to the Military Authorities. Farmers might apply for men for any class of farm work and when the nature of the work was specified in the form of application, Commanding Officers endeavoured to select suitable men so far as was possible. When a farmer applied for his son or one of his former labourers who was serving at home, efforts were made to release him.

(1) *Journal of the Board of Agriculture*, July 1915.

(2) *Journal of the Board of Agriculture*, October 1915.

(3) Notice to Farmers as to Soldier Labour, issued by the Board of Agriculture early in 1916 (*Journal of the Board of Agriculture*, February 1916).

A farmer living in the neighbourhood of a military station could apply direct to a Commanding Officer for military labour which he required at short notice and for a period not exceeding six working days. This arrangement was made to enable the farmer to take advantage of fine days or short intervals of fine weather suitable for his work.

The arrangements made at this time contemplated also the temporary employment of convalescent soldiers on agricultural work within easy reach of where they were stationed. For the purpose of such employment, convalescent soldiers were granted sick furlough, which was liable to be cancelled forthwith if at any time a man's health so improved that he was fit for discharge from the depot or hospital or if his health was suffering from the work.

Applications from farmers desiring to employ convalescent soldiers were usually made to the Board of Trade Labour Exchanges, but a farmer living in the neighbourhood of the man's military station who required a man at short notice, could apply direct to the Officer Commanding the depot or hospital. In making application, the farmer was required to state clearly the exact nature of the employment in order that the Military Authorities might be in a position to decide whether a soldier was capable of undertaking the work he would be called upon to do.

There was as yet no arrangement for releasing soldiers to work continuously on the land. The provision of soldiers for agricultural work was solely intended as a temporary expedient (1). Soldiers serving abroad could not be brought home, not could men under training be allowed away, nor those required for necessary military duty, nor men who had recently been called up. It was to be understood that any soldier was liable to instant recall if required.

In July 1916, the Army Council gave their approval to arrangements under which squads of soldiers would be detached from their headquarters, supplied with tents and allowed to camp out in districts where their services were required for the harvest, but subject to recall to their headquarters at short notice (2).

For the harvest of 1916 the Army Council decided to release some 27,000 soldiers (3). The terms and conditions of employment were the same as those already in force.

New applications for soldiers had to be made through the local Labour Exchange and no application was entertained unless it had been received at the Labour Exchange before noon on Wednesday, 9 August 1916.

Applications already made, if they asked for soldiers to be sent on dates between 14 and 21 August inclusive were met as far as possible and no new application was necessary. In all other cases new applications had to be made.

(1) Notice on the Employment of Soldiers on Agricultural Work issued by the War Office (*Journal of the Board of Agriculture*, June 1916).

(2) Circular Letter, dated 7 July 1916, from the Board of Agriculture to County War Agricultural Committees (*Journal of the Board of Agriculture*, July 1916).

(3) *Journal of the Board of Agriculture*, August 1916.

The number of soldiers to be released represented only a small fraction of the number of men normally employed in the harvest, and many of the soldiers were unskilled in agriculture. It was also necessary, for military reasons, to retain in the Eastern counties a large proportion of the men released for harvest work.

For the spring cultivation of 1917 an arrangement was made between the War Office and the Board of Agriculture for placing a further supply of military labour at the service of farmers (1). In addition to the allotment of 15,000 men attached to home defence forces, whose labour would be made available to farmers under the arrangements hitherto in force, a further body of 15,000 men would be detached and quartered in different parts of the country.

The men would be quartered at infantry depots selected by General Headquarters. Each company would have an establishment of 250, with a due proportion of warrant officers and non-commissioned officers and would include men for clerical work to deal with applications from committees and farmers. A major, captain, and two subalterns would be appointed to each company.

The Board of Agriculture, in consultation with the War Agricultural Committees prepared a scheme for the distribution of this army of military labour between the various counties according to their requirements. Liberal allotments were made to the more important wheat-growing counties such as Norfolk.

A revised scheme for providing soldiers to assist in agricultural operations was drawn up about the same time (2). Some of the soldiers were to be provided from the Home Defence Force and others from the Army Class W Reserve.

The Home Defence Force men, 12,500 in number, were intended for the work of spring cultivation and would be subject to recall on 15 April. While the War Office could not guarantee that all these men would possess a knowledge of agriculture, they undertook to select, as far as possible, fit and able-bodied men with such knowledge. The demand for these men was to be ascertained by the War Agricultural Committee of each county, and the Board of Agriculture notified of the number likely to be required. Certain military depots were selected to be used as Distributing Centres and the War Office would move men to these depots as soon as the numbers needed were made known to them by the Board.

An arrangement had also been come to by which 4,000 able-bodied soldiers belonging to Infantry Works Battalions would be transferred to the Class W Reserve, and placed at the disposal of the Board of Agriculture in lieu of 4,000 combatant prisoners of war who had been allocated

(1) *Journal of the Board of Agriculture*, February 1917.

(2) Circular Letter, dated 2 March 1917, addressed by the Food Production Department of the Board of Agriculture to War Agricultural Committees (*Journal of the Board of Agriculture*, April 1917).

for agriculture in January 1917. These soldiers would, subject to unexpected military exigencies, remain in agriculture until the end of the war.

In addition to these 4,000 soldiers, at least another 6,000 men of lower medical categories, making 10,000 in all, would be provided from classes of enlisted men not reserved for Home Defence, and would also be available for farm labour until the end of the war, unless they were recalled for urgent military reasons. These men, until allotted to individual farmers, would be stationed at the selected military depots.

Any farmer who wished to employ men belonging to either of these two classes was to make application to the County War Agricultural Committee.

The War Office were of opinion that the most desirable method of reinforcing labour on farms was by means of a system of sending detachments of soldiers to selected localities, but they were prepared to consider applications for the release of individual men to return to particular farms, provided the circumstances were really exceptional (1).

The following were illustrations of what might be described as exceptional circumstances :—

(a) Where the soldier was the farmer himself and was required to manage the farm ;

(b) Where a son, owing to his father's recent decease, had become the virtual tenant and was required to manage the farm ; or

(c) Where the wife and family of the soldier were living in one of the farmer's cottages, and the soldier was of low medical category.

As regards men serving overseas, an even greater degree of urgency was required to be shown before there was any likelihood of their release being favourably considered.

In May 1917, at the request of the Board of Agriculture, the Military Authorities instructed Commanding Officers that skilled sheep-shearers not in Category A, for whose services application was made, were to be granted one month's agricultural furlough, if they could possibly be spared from their units (2). Applications were to be forwarded through County Agricultural Executive Committees.

Special arrangements were made by the Army Authorities to provide soldiers to assist with the hay and corn harvest of 1917 (3). The men were, however, to be available only until the end of the corn harvest.

The soldiers whom it was proposed to supply were to be sent to Military Distribution Centres. A farmer requiring the assistance of such

(1) Circular letter, dated 28 March 1917, addressed by the Director-General of Food Production to County War Agricultural Executive Committees (*Journal of the Board of Agriculture*, April 1917)

(2) Memorandum, dated 14 May 1917, issued by the Food Production Department of the Board of Agriculture to County War Agricultural Executive Committees (*Journal of the Board of Agriculture*, June 1917)

(3) Circular Letter, dated 19 June 1917, addressed by the Food Production Department of the Board of Agriculture to County War Agricultural Executive Committees (*Journal of the Board of Agriculture*, July 1917).

men was to apply to the Agricultural Executive Committee of his county by whom the application was to be passed to the Sub-Commissioner for the county of the National Service Department. It was this official who was responsible for seeing that the labour required was supplied.

In connection with the foregoing scheme for the supply of soldier labour for the hay and corn harvests, representations were made that in many districts the men would not be wholly employed on harvest work, inasmuch as a few weeks' interval would occur between the hay and corn harvests, during which time farmers engaging these soldiers would desire to employ them on general farm work (1). Authority was accordingly given so to employ them.

The military authorities agreed, a few weeks later, that no soldiers who were then engaged on agricultural work were to be withdrawn from the land until further notice (2). This instruction applied to all classes of soldiers who had been made available for agricultural work. The soldiers due to return to their units on 25 July were, therefore, to be allowed to remain on the farms where they were employed until the Executive Committees found it necessary to make use of their services elsewhere.

About the same time arrangements were made by which a large number of soldiers were to be made available for work on the land in connection with the programme for increased cultivation for the 1918 harvest (3). These men were to be made available gradually and were to be sent to Agricultural Distribution Centres (with which the existing Agricultural Depots would be incorporated) conveniently situated for each county.

The arrangements contemplated included a scheme for the supply of horses with soldier ploughmen, to which we shall have occasion to refer later, and the supply of unskilled labourers to farmers requiring such men for work in connection with the 1918 harvest.

Farmers who were entitled to the services of these men but were unable to commence operations before the harvest and were in need of additional men for harvest, were to be allowed to have the men forthwith at the rates of wages laid down for harvest work. These soldiers were to be allotted, subject to military exigencies, for permanent employment in connection with the 1918 programme, but as regards the men out on harvest work re-allocation amongst the various counties might be necessary after harvest.

In December 1917 a simplification was introduced into the method

(1) Circular Letter, dated 29 June 1917, addressed by the Food Production Department of the Board of Agriculture to County War Agricultural Executive Committees (*Journal of the Board of Agriculture*, July 1917).

(2) Memorandum, dated 10 July 1917, issued by the Food Production Department of the Board of Agriculture to County War Agricultural Executive Committees (*Journal of the Board of Agriculture*, July 1917).

(3) Circular Letter, dated 19 July 1917, and Memorandum, dated 23 July 1917, issued by the Food Production Department of the Board of Agriculture to County War Agricultural Executive Committees (*Journal of the Board of Agriculture*, August 1917).

of releasing for agriculture men of low category serving at home (1). It was arranged that the local representatives of the Food Production Department should bring to the notice of the Agricultural Commandants at Distribution Centres the names and addresses of such men whom they had asked to be made available for agriculture. The Commandants would forward the names direct to the headquarters of the Command in which the men were serving, indicating to which Agricultural Company the men should be posted if they could be made available. The ordinary procedure would then be followed as to transferring and posting the men as between Commands.

The arrangement did not apply to men in Category A nor to men serving abroad; applications in respect of such men were to be dealt with by the Food Production Department as previously. As regards men serving overseas, applications could only be considered respecting men in medical categories below A. Men in Category A and in the Mechanical Transport Section of the Army Service Corps were not available for transfer to agricultural companies.

In the same month a large number of unskilled soldiers was made available for agricultural work, and the Food Production Department asked the Agricultural Executive Committees to arrange for their employment at once on drainage work, ditching, etc., as much work of this kind was urgently required to be done in every county (2). The Executive Committees were informed that in any case in which they considered that compulsory orders should be made to carry out such work, they need not be deterred from making such orders by fear of lack of labour for the purpose as this source of labour could readily be drawn upon. If the number of soldiers required was not available at the Distribution Centre serving the county, immediate application was to be made to the Department, stating the additional number of men required, when arrangements would be made for their transfer from another centre.

A further provision whereby the number of soldiers at work on the land was slightly increased was an arrangement made at the end of 1917 between the War Office and the Food Production Department whereby in exceptional circumstances and on the recommendation of the Agricultural Executive Committee concerned, an extension of leave not exceeding one month would be granted to a man serving soldier who at the time of the application was on leave and whose services were urgently required on the particular farm (3).

(1) Memorandum, dated 11 December 1917, issued by the Food Production Department of the Board of Agriculture to County War Agricultural Executive Committees (*Journal of the Board of Agriculture*, December 1917).

(2) Memorandum, dated 19 December 1917, issued by the Food Production Department of the Board of Agriculture to County War Agricultural Executive Committees (*Journal of the Board of Agriculture*, January 1918).

(3) Memorandum, dated 28 December 1917, issued by the Food Production Department of the Board of Agriculture to County War Agricultural Executive Committees (*Journal of the Board of Agriculture*, January 1918).

There was now a fully developed system for the employment of soldiers on the land and the arrangements made in 1918 related for the most part to questions of detail.

Thus in June 1918, in view of the need for increased supervision over the work which the soldier labourers were called upon to perform, the Agricultural Executive Committees were asked by the Food Production Department to arrange for periodical inquiries to be made (1). This could be done either by a personal visit by an officer or member of the District Committee or by reference to the police as to whether the soldiers were employed at the place and on the work to which they were sent out. In this matter committees were urged to seek the co-operation of the Commandant of the Distribution Centre and in any cases where inquiry showed that the soldier should be withdrawn, to ask the Commandant to take the necessary action at once.

For harvest work in 1918 the Army Council decided to release several thousand soldiers on agricultural furlough (2). These men were to be distributed among the counties where labour assistance for the harvest was most needed. Application for soldier labourers for the harvest was to be made to the Agricultural Executive Committees, who would arrange with the Commandants of the Distribution Centres.

Amongst the soldiers who on this occasion were made available for agriculture was a small number of men from Command Depots (3). The employment of suitable convalescent soldiers on harvest work was also authorized on condition that they returned to hospital each night or once every three days for medical examination. Men belonging to the Royal Air Force were also encouraged to volunteer for harvest work in the neighbourhood of their camps when they could be spared from their ordinary duties.

In an Army Council Instruction issued by the War Office on 7 September 1918 it was stated that recent medical inspections had shown that there was a number of Category A men serving in Agricultural Companies and it had been decided to withdraw them after 15 September 1918 for military duty whenever they could be replaced by soldiers of a lower category (4). Exceptions were made in the cases of those employed in certain kinds of work.

Soldiers who were eligible would continue to be posted to agricultural companies, but those sent out for farm work on or after 1 August 1918 would be withdrawn after 15 September.

The arrangements for withdrawing the A men would be carried out

(1) Memorandum, dated 3 June 1918, issued by the Food Production Department of the Board of Agriculture to County War Agricultural Executive Committees (*Journal of the Board of Agriculture*, June 1918).

(2) *Journal of the Board of Agriculture*, August 1918.

(3) Memorandum, dated 5 July 1918, issued by the Food Production Department of the Board of Agriculture to County War Agricultural Executive Committees (*Journal of the Board of Agriculture*, July 1918).

(4) *Journal of the Board of Agriculture*, October 1918.

between the County Agricultural Executive Committees and the Commandants of Agricultural Distribution Centres.

As far as possible trained or partly-trained soldiers would be selected for withdrawal in priority to others, but due consideration would be given to the inconvenience which might be occasioned if certain men were taken away from their employment sooner than was absolutely necessary.

The Agricultural Executive Committee might decide that, in some cases, it was not necessary to replace a Category A man withdrawn from a farm, in which case they would be free to allot the lower category man, supplied as a substitute, to any other farm which was in need of labour.

If at any time there were no further A men on the strength of the companies at a centre, a report was to be made to the War Office, so that instructions might be issued for the disposal of the substitutes who would be sent there.

As A men could only be withdrawn as lower category men became available it was important that all experienced farm labourers serving in units at home in a lower category than A should be transferred to the Labour Corps and posted to Agricultural Companies. The only exceptions were B1 men who were fully-trained infantry men and men in technical corps more usefully employed at a trade from which they could not be relieved, and which would be of no value to agriculture.

The cessation of hostilities on 11 November 1918 could not, of course, be followed by immediate demobilization, but men of low medical category who were experienced farm workers and were serving at home were at once sent to Agricultural Companies and made available for agricultural work (1). This provision was extended by an Army Council Instruction issued in January 1919, which allowed any agriculturist serving at home, whatever his medical category, to be attached to an Agricultural Company, pending his demobilization (2). Over 12,000 men were sent out to their former employers on furlough under this procedure.

On the other hand, many of the soldiers employed on the land were not, in normal times, agricultural labourers and would on demobilization have been lost to agriculture. Consequently it was decided in May 1919 temporarily to retain for agriculture up to 20 per cent. of the soldiers employed on the land, in and attached to Agricultural Companies, in addition to the men whose application for demobilization as "pivotal" men had been sanctioned by the Ministry of Labour before 1 February 1919 (3). These men were to be selected by War Agricultural Committees in conjunction with Agricultural Commandants and would be nominated from those considered to be indispensable. All other soldiers employed on agriculture were to be withdrawn, a fortnight's notice being given to farmers before their withdrawal.

(1) Reply by the Under Secretary for War to a Question in the House of Commons, 19 November 1918 (*Journal of the Board of Agriculture*, December 1918).

(2) *Journal of the Board of Agriculture*, February 1919.

(3) *Journal of the Board of Agriculture*, May 1919.

Eventually, as the demobilization of agricultural workers proceeded, even this reduced supply of soldier labourers was withdrawn.

B. The Conditions of Employment.

Under the arrangements made for the release of soldiers for the hay harvest and for the autumn cultivation in 1915 and under those made early in 1916 for the employment of soldiers on farm work at any season of the year, each soldier labourer was to be paid 4s. a day if he provided his own board and lodging or 2s. 6d. a day if board and lodging were provided by the farmer (1).

These rates were to be inclusive of all allowances and were to be paid in respect of wet as well as of fine days. The hours worked were to be those customary in the district.

No charge was made to the farmer for the railway travelling expenses of the soldier labourers assigned to him, but he was expected to provide conveyance from and to the nearest railway station.

A convalescent soldier might either live away from the depot or hospital, or go to his work daily from his military quarters. The cost, if any, of moving the man to or from his work was borne by the farmer, except that no charge was made to the farmer for railway travelling expenses, if the man was employed for a week or more at a distance of 20 miles or over by rail, or if the man was away at least 3 days at a distance by rail of less than 20 miles.

If the convalescent soldier went away from his military station he was to be paid 3s. 6d. a day if he provided his own board and lodging and 2s. a day if board and lodging was provided by the farmer. One rest day in every seven days was to be allowed to him and in respect of that day he received Army pay.

In cases in which the convalescent soldier returned each day to his depot or hospital, he was to be paid at the rate of 3d. per hour, including hours for meals. At least one good meal was to be provided by the farmer, if the hours of work were such as to prevent the soldier returning to his unit for his midday meal.

The rates of pay for soldier labourers employed for the corn harvest of 1916 were fixed as follows (2):—

(a) In Cambridgeshire, Essex, Huntingdonshire, the Isle of Ely, Lincolnshire, the Soke of Peterborough, the East and West Ridings of Yorkshire and Rutland, 6s. a day for 10 working hours if the soldier provided his own board and lodging or 4s. 6d. if board and lodging were provided by the farmer, with 6d. an hour overtime.

(b) In the remaining counties of England and Wales, 5s. for a day of 10 working hours if the soldier provided his own board and lodging,

(1) *Journal of the Board of Agriculture*, July and October 1915, and Notice indicated in note (3), page 234.

(2) Notice cited in note (1), page 235.

or 3s. 6d. if board and lodging were provided by the farmer, with 5d. an hour overtime.

These rates were to be inclusive of all allowances and were to be paid in respect of wet days as well as of fine days.

The soldier's army pay during the days on which he received civil pay from the farmer were regarded as included in the civil pay. He was credited with his Army pay for any Sunday included in the furlough, if he were not given civil pay on that day. He received no lodging allowance, rations, or ration allowance from Army funds, nor was he to be billeted. If separation or family allowance had been issued before the soldier's employment on farm work it continued to be issued during his absence.

Soldiers injured while in the farmers' employ had no claim to Army pension, but would be dealt with under the Workmen's Compensation Act, the farmer insuring as for the rest of his labour. They continued as soldiers for health insurance, and the farmer paid no contribution for this.

The farmer was at liberty to dismiss a man upon giving one day's notice or one day's wages in lieu thereof; the man's furlough was thereupon considered as cancelled and he returned at once to his unit.

Under the arrangements made for the release of soldiers for work in connection with the spring cultivation of 1917 the wages to be paid to the soldier labourers were to be at local rates as determined by the War Agricultural Committees (1).

Under the revised scheme for releasing soldiers for work on the land issued in March 1917, it was provided that, when the farmer boarded and lodged the men, he would pay the rate of wages current for agricultural labourers who lived in; otherwise, he would be required to pay the rate current for agricultural labourers who lived out (2). When the Officer Commanding Agricultural Company desired information as to what the current rate was or what were fair wages for overtime work, he was to refer to the War Agricultural Committee whose decision would be final.

With regard to the payment of men belonging to Agricultural Companies who were boarded and lodged by their employers some misunderstanding arose and in many cases the employers, instead of paying the "living-in" rate, were allowed to pay the "living-out" rate and to have the soldiers billeted on them under Army conditions. The effect of this was that the employer had paid less than the "living-in" rate. Commanding Officers were, therefore, instructed to take care that where men were provided with food and accommodation by their employers billeting money was not to be paid, but the full amount of the "living-in" rate was to be charged to the employers (3).

(1) *Journal of the Board of Agriculture*, February 1917.

(2) Circular Letter cited in note (1), page 136.

(3) Army Council Instruction, No. 525 of 1917. — Memorandum, dated 31 March 1917, issued by the Food Production Department of the Board of Agriculture to County War Agricultural Executive Committees (*Journal of the Board of Agriculture*, May 1917).

When the employer provided lodging, cooking facilities (including fuel) and light, but not food, he would be required to pay the "living-out" rate of wages for the men, but against this charge he would be credited with a sum equivalent to that which he would have received if the men had been formally billeted upon him under the Army Act, *i. e.* 9*d.* per day for the first soldier and 6*d.* for each additional soldier. The effect of this Regulation is shown by the following examples :

1. Assuming the "living-out" rate in the district was 25*s.* and the "living-in" rate 10*s.* per week, the farmer who boarded and lodged a soldier might have been previously permitted to deduct the billeting allowance of 19*s.* 3*d.* per week from the 25*s.* "living-out" rate, or in other words, he had secured the services of the soldier for 5*s.* 9*d.* per week, plus the cost of keeping him, whereas the "living-in" rate for the district was known to be 10*s.* per week. He would now have to pay the local "living-in" rate, *viz.*, 10*s.* per week.

2. Assuming the district rate of wages was 25*s.* and a farmer had hired two soldiers to whom he supplied lodging, cooking facilities (including fuel) and light, but no food,

	<i>s.</i>	<i>d.</i>
for the first man he might deduct 9 <i>d.</i> per day	5	3
for the second man he might deduct 6 <i>d.</i> per day	3	6
	8	9

so that the weekly sum due from him was 50*s.*, less 8*s.* 9*d.* = 41*s.* 3*d.*

In regard to the soldier labourers released in 1917 to assist with the hay and corn harvest, it was laid down that when the farmer boarded and lodged the men they were to be paid the rate of wage current in the district for harvest work for agricultural labourers who lived in, subject to the minimum rates mentioned below (4). Otherwise he was to pay the rate current for harvest work for agricultural labourers who lived out, subject to the minimum rates mentioned below. In the event of any dispute as to what the current rate was, whether for men living in or out, the decision of the County Agricultural Executive Committee was to be final.

For the hay harvest the minimum rates of wages would be as follows, but the local rate of wages was to be paid if it were in excess of these minimum rates :—

(a) 5*s.* 0*d.* for each week-day while the soldier was employed (and each Sunday on which he worked), if the soldier provided his own board and lodging. Overtime at the rate of 6*d.* per hour, after 10 working hours.

(b) 2*s.* 6*d.* for each week-day while the soldier was employed (and each Sunday on which he worked), if board and lodging were provided by the farmer. Overtime at the rate of 6*d.* per hour after 10 working hours.

(4) Circular Letter cited in note (3), page 237.

For the corn harvest the minimum rates were to be as follows, but the local rate of wage was to be paid if in excess of these minimum rates :—

(a) Cambridgeshire, Essex, Huntingdonshire, Isle of Ely, Lincolnshire, Soke of Peterborough, Suffolk, the East and West Ridings of Yorkshire and Rutland: 7s. 0d. per day of 10 working hours, if the soldier provided his own board and lodging, or 4s. 6d. if board and lodging was provided by the farmer, with 6d. per hour overtime.

(b) For the remaining counties of England and Wales: 6s. for a day of 10 working hours, if the soldier provided his own board and lodging, or 3s. 6d. if board and lodging were provided by the farmer, with 6d. an hour overtime.

When the men were not actually engaged in harvest work, the following minimum rates of wages would apply (1) :—

(a) 4s. 2d. for each week-day while the soldier was employed (and each Sunday on which he worked), if the soldier provided his own board and lodging.

(b) 1s. 8d. for each week-day while the soldier was employed (and each Sunday on which he worked), if board and lodging were provided by the farmer.

The local rate of wages was however to be paid if in excess of the minimum rates.

The number of soldiers engaged on agricultural work made it necessary at the end of 1917 to modify the arrangement by which farmers had been at liberty to send soldiers back at a day's notice (2). This arrangement had originally been intended to apply to men only sent out for a short time, such as harvest time, and was likely to entail considerable congestion at Distribution Centres if farmers started sending men back whenever there was a spell of bad weather which interrupted outdoor work.

It was therefore decided that in the case of men who had been accepted by a farmer and retained more than six days, a fortnight's notice was to be given in writing to the Agricultural Commandant of the Distribution Centre from which the man was sent indicating when it was wished that the man should be withdrawn and the grounds for doing so. This was not to apply to men who were sent out for definite periods of under or up to one month.

Exceptional cases might arise which made it desirable to withdraw the man at short notice, and the Agricultural Commandants were, so far as possible, to accept such men if due notice were given.

In the same way a fortnight's notice was, if possible, to be given to a farmer before a man was withdrawn for military reasons.

In April 1918 it was laid down by the Army Council that thenceforth

(1) Circular Letter cited in note (1), page 238.

(2) Circular Letter, dated 21 December 1917, addressed by the Food Production Department of the Board of Agriculture to County War Agricultural Executive Committees (*Journal of the Board of Agriculture*, January 1918).

farmers would be required to provide board and lodging for soldiers employed in agriculture and to pay for their services at the local "living-in" rate, with a minimum of 10s. per week (1).

These conditions were amended in September 1918 in view of the decisions of the Agricultural Wages Board (2). It was decided that a minimum cash payment of 12s. 6d. per week was to be given and that overtime was to be paid for at the new rates

C. The Supply and Training of Tractor Drivers and Steam Plough or Threshing Tackle Men.

It was found that many of the so-called skilled men who were being sent to Distribution Centres in 1917 had little or no previous experience of farm work, but that a considerable proportion of them possessed other experience which would enable them to be quickly trained for various branches of work connected with the new programme. The Food Production Department of the Board of Agriculture accordingly prepared schemes for the training of (a) tractor drivers, and (b) steam plough or threshing tackle men (3).

It was arranged that a careful examination of each man should be made on his arrival at the Distribution Centre, with a view to selecting those who by a short course of training could be made of value for some branch of farm work. As far as possible non-commissioned officers were to be selected for tractor or steam-plough work as with the higher wages paid for this class of work they would not lose by their transfer to agriculture.

The men most suitable for training for tractor work would, as a rule, be men of the Mechanical Transport Section of the Army Service Corps, or men engaged in the motoring or engineering trades previous to enlistment. From these and other suitable candidates about 12 men were to be selected for each county for training as tractor drivers.

The tractor representative of the Food Production Department was to be asked to prepare a list of the tractor drivers under his charge in the county who were sufficiently skilled to be capable of training other men in both driving and ploughing, and to submit the list to the Labour Branch of the Food Production Department. The Department would subsequently arrange for the tractor representative to take over the men selected, who were to be trained in both ploughing and tractor driving.

(1) Memorandum, dated 3 April 1918, issued by the Food Production Department of the Board of Agriculture to County War Agricultural Executive Committees (*Journal of the Board of Agriculture*, May 1918).

(2) Memorandum, dated 23 September 1918, addressed by the Food Production Department of the Board of Agriculture to County War Agricultural Executive Committees (*Journal of the Board of Agriculture*, October 1918).

(3) Memorandum, dated 17 September 1917, issued by the Food Production Department of the Board of Agriculture to County War Agricultural Executive Committees (*Journal of the Board of Agriculture*, October 1917).

Under normal conditions the course of training was not to extend beyond a fortnight.

The men most suitable for employment as steam plough and threshing tackle men would be those who had had previous experience in agricultural work, or who were intelligent, strong, active and willing to work long hours (if necessary), or any men who had been accustomed to agricultural engines, steam road rolling engines or hauling engines. In the first instance the men would receive a wage of 25s., which, if they made proper progress, would be increased at the end of the first month, and again when the man had become thoroughly proficient. For a commencement, the six most suitable men would be selected from among the soldiers sent to each Distribution Centre and the Department would arrange through the Steam Cultivation Development Association and threshing tackle owners, for the training of these men, so that all steam ploughing and threshing tackle might be kept fully manned.

In asking the owners of threshing tackle to undertake the training of soldier labourers, the Food Production Department informed them that it was prepared to approach the War Office for leave to be granted to skilled men then on military service who were not in Category A nor employed in the Mechanical Transport Section of the Army Service Corps (1). No guarantee could be given, however, that any men could be granted furlough, and owners of threshing tackle were urged to apply for men suitable to be trained, and to arrange to employ a gang of four or five soldiers to travel with each threshing machine from farm to farm in order to avoid the serious dislocation which otherwise occurred owing to so many farm hands being taken from their ordinary work on the arrival of the threshing machine.

By the end of 1917 the supply of tractors was largely increased, and it was decided to send a considerable number of soldiers from the Distribution Centres direct to tractor representatives to undergo their entire training on the land (2). It was expected that the training of these men would not take more than six weeks. Tractor representatives were asked to arrange to take immediately soldiers for training in this way with 50 per cent. of the tractors then in the county; this departure was not however to interfere with the training of such men as became available from the training schools.

A statement was sent by the Food Production Department to tractor representatives of the number of men whom the Department had instructed the Distribution Centres to place at their disposal. When these men had completed their training they were to be retained by the tractor representative as "third men" pending the arrival of further tractors.

(1) Circular Letter, dated 18 September 1917, addressed by the Food Production Department of the Board of Agriculture to owners of threshing tackle (*Journal of the Board of Agriculture*, October 1917).

(2) Circular Letter, dated 15 December 1917, addressed by the Food Production Department of the Board of Agriculture to tractor representatives (*Journal of the Board of Agriculture*, January 1918).

Soldiers trained entirely by tractor representatives were to be paid at the rate of 25s. a week for a month, without a proficiency bonus, but men from a training school were to be paid at this rate for two weeks only. At the end of either period the men, if proficient, were to be paid 30s. a week for the next two weeks without bonus and thereafter 30s. per week and a bonus of 1s. per acre ploughed, the bonus on other operations being based on 1s. for every pound sterling charged to the farmer. The payment of bonus was limited to 2s. an acre (or 2s. in the pound for operations other than ploughing) for any one tractor and plough. The division of this sum, if there were more than two persons employed, was to be determined by the tractor representative. Trained men instructing others were to be paid 10s. for each learner who was passed as efficient.

In the schools established for the training of soldiers as tractor drivers and ploughmen, 4,093 soldiers were trained. About 200 soldiers were also sent out for training with steam plough and threshing sets (1).

In August 1918, owing to the issue of revised regulations in regard to the pay of soldiers and owing to the fixing of local rates of wages by the Agricultural Wages Board, it became necessary to alter the rates of payment to soldiers engaged on tractor work (2).

For the future, in each county where the Agricultural Wages Board had fixed rates, all soldier labourers engaged on tractor work were to be paid the minimum rate fixed for the number of weekly hours specified by such Board. This entailed the abolition of the existing 30s. rate and 60 hours per week in these counties.

Overtime in excess of the hours specified by the Wages Board and Sunday work were to be paid for at the rate fixed by the Wages Board, and Sunday pay at the overtime rates, if no other rate had been fixed.

In addition a bonus not exceeding 8d. in the pound charged to the farmer in respect of any one tractor and implement might, at the discretion of the Agricultural Executive Committee, be paid to persons engaged on tractor work, i. e., if the bonus were fixed at 3d. in the pound and the team consisted (a) of one person, the bonus payable would be 3d. in the pound, (b) of two persons, the total bonus payable would be 6d. in the pound, and (c) of three persons, the total bonus payable would not exceed 8d. in the pound.

In the unlikely event of the above rates (including bonus) falling short of the minimum for soldiers, namely 12s. 6d. per week, plus board and lodging, soldiers were to be paid such minimum.

If no Agricultural Wages Board rate had been fixed, the existing scale would obtain until such rate was fixed, namely 30s. per week without overtime for a 60 hours week, plus bonus of 1s. per acre ploughed, etc., and 6d. per hour for Sunday work up to a maximum of 5s. for any day.

(1) *Journal of the Board of Agriculture*, December 1918.

(2) Memorandum, dated 17 August 1918, addressed by the Food Production Department of the Board of Agriculture to County War Agricultural Executive Committees (*Journal of the Board of Agriculture*, September 1918).

Should it become necessary to dismiss labour owing to the shortage of work reference should first be made to the Department with a view to the surplus labour being transferred elsewhere. If this were not possible soldiers could then be returned to their Agricultural Companies.

Individual applications by soldiers for transfer to other counties in which they ordinarily resided would in future be arranged between the Committees of the counties concerned, but authority was to be obtained from the Officer Commanding the men's Agricultural Company before transfers were effected.

Soldier labourers were entitled to such leave as was laid down in Army Regulations. During leave they would receive Army pay from their Agricultural Companies and they would not therefore receive any payment from the Agricultural Executive Committee during such absence. Leave was only to be granted when, in the opinion of the Committee, the labour could be reasonably spared.

It was found in practice that the training of men did not interfere with the output of the tractor and the bonus of 10s. for each man passed as competent was cancelled.

Payment for soldier learners was to be the Agricultural Wages Board minimum rate without bonus until they were considered competent. If no such rates had been fixed they were to be paid 25s. a week for two weeks, 30s. a week for two weeks, and then when competent 30s. a week and acreage bonus. Soldier learners might also be paid subsistence and travelling allowances on the same terms as competent labour.

When, in accordance with the decision of the War Office in September 1918 men of Category A were withdrawn from Agricultural Companies, special exception was made in the cases of those who were employed as tractor-drivers, steam-plough drivers and threshing-engine drivers (1).

Immediately after the armistice it was announced that all threshing-machine drivers, irrespective of category, who were then serving with the Home Forces would be released immediately on agricultural furlough (2). This provision affected some 250 to 300 men, who were to be distributed from the Centres serving their counties of origin.

1). *The Supply and Training of Horse Ploughmen.*

Special arrangements were made at various times for the supply and training of horse ploughmen.

Thus, in March 1917, in view of the dearth not only of agricultural labour, but in some districts of horses suitable for farm work, the Army Council directed commanders of units in possession of draught horses or mules to arrange for the temporary loan of horses and drivers to farmers in the vicinity of their stations who might require such help (3). Payment

(1) *Journal of the Board of Agriculture*, October 1918.

(2) *Journal of the Board of Agriculture*, November 1918.

(3) *Journal of the Board of Agriculture*, March 1917.

would be required at the rate of 4s. per day for each horse for a working day of eight hours, farmers supplying without charge forage and where necessary stabling. Drivers were to be paid by the farmer at the rates already laid down by the Army Council.

The arrangements made in July 1917 (1) in connection with the programme for increased cultivation for the 1918 harvest included the supply of:—

(a) Horses with soldier ploughmen to be let out for fixed periods (according to scale) to farmers who were materially increasing their corn area for 1918, but were unable to carry out the work without this assistance;

(b) Horses with soldier ploughmen working in gangs equipped with necessary implements who would deal with small areas (less than eight acres) of corn land which farmers could not undertake without such assistance;

(c) A limited number of experienced men to farmers who had undertaken or would undertake to increase materially their acreage of corn land, but who could not do so without the help of experienced men, but had both horses and implements available for the purpose.

(d) A limited number of experienced men to farmers who without such assistance would have farm horses idle entailing a less area of their arable land being cultivated for the 1918 harvest.

The details of the schemes for the supply of teams of horses do not here concern us, but it may be noted that a soldier or other ploughman was to be allotted to take charge of each team. When a team was lent to a farmer he was to find board and lodging for the ploughman and to pay him the local rate of wage for a skilled ploughman, deducting 16s. a week for his board and lodging.

Assistance to the smaller farmers was to be given by means of travelling gangs, consisting of a number of teams varying according to the amount of work to be done. Small gangs of three or four teams were to form a working unit and were to be placed in charge of a senior ploughman, who was to be paid 3s. a week more than the others. As far as possible a non-commissioned officer was to be selected as senior ploughman, if possessed of the necessary qualifications.

When in September 1917 schemes were prepared for the training of tractor drivers and steam plough or threshing tackle men, a scheme was prepared at the same time for the training of horse ploughmen (2). It was pointed out that amongst the soldiers sent to the Distribution Centres would be found many who had had long experience of horses in towns, but who lacked agricultural knowledge. These men, after being taught to plough, etc., could be entrusted with the working of a team of horses. In some cases skilled ploughmen in charge of Government horses could be selected to give the course of training, but it would also be open to the Agricultural Executive Committees to make arrangements with some

(1) Circular Letter cited in note (3), page 238.

(2) Memorandum cited in note (3), page 246.

of the best farmers who had ploughing work in progress to have men taught by their own ploughmen. Under normal conditions the period of training was not to extend beyond 14 days.

An alternative arrangement that had already been adopted by several Committees was to secure suitable land within easy reach of the Distribution Centre to be ploughed free of cost to the farmer. In this case one or two competent ploughmen would be required to act as instructors and the requisite number of horses could be obtained for the purpose by the Committee under the Horse Scheme already referred to (1), as well as ploughs, if these could not be borrowed.

Where a man was being trained with one of the gang-ploughmen, or by a ploughman employed directly by the Committee, the ploughman might be paid a bonus of 5s. for each man taught. When the training was given by a farmer, he might be allowed the free services of the men undergoing training for ordinary farm work when ploughing could not be done.

It was obviously an advantage to the unskilled man to be trained in order that he might subsequently secure a higher rate of wages and it was also advisable to offer some further monetary inducement to become proficient in the shortest possible time. The Food Production Department had therefore arranged that whilst any man was undergoing training in horse ploughing or tractor driving, and had to live away from his military depot, he should be paid only 21s. per week (living-out rate), but when he was able to show proficiency in the work he should be paid a bonus of 10s. and thereafter be secured employment at the full rate of wages.

Where soldiers were being trained in the vicinity of the Distribution Centre, returning to barracks each night and still remaining under military control, they would receive only their military pay during the period of training, but would be entitled to the 10s. bonus on passing the proficiency test.

The men were to be examined at the end of 14 days' training and if a man was sufficiently advanced to enable him to be employed forthwith in the particular branch of work for which he had been trained, the Agricultural Executive Committee was to grant him a certificate of proficiency. If it was considered that a further week's training was essential before the soldier could become proficient arrangements were to be made for this to be given. On the other hand, if it were thought that the man was not likely to prove satisfactory even with this additional training, he was to be returned to the Distribution Centre, no bonus being payable in these circumstances.

Schools for the training of horse ploughmen were quickly established in many counties and other counties sent out men to be trained by farmers (2). The former method was, however, considered the most satisfac-

(1) See above, page 250.

(2) Memorandum, dated 8 November 1917, issued by the Food Production Department of the Board of Agriculture to County War Agricultural Executive Committees (*Journal of the Board of Agriculture*, December 1917)

tory as at the training schools the men could be trained with the horses with which they would be sent out under the horse scheme, and a closer control could be kept over the subsequent movements of the men.

Apart from the soldiers trained as ploughmen on selected farms, about 4,000 men were taught to plough at the 30 training schools established in the neighbourhood of Distribution Centres (1).

When the War Office decided in September 1918 to withdraw men of Category A from Agricultural Companies the Food Production Department of the Board of Agriculture was able to arrange with them that soldier ploughmen who had recently been graded "A" should not be withdrawn from the farms, even though substitutes had already been provided by the Military Authorities (2). The War Office further agreed to make every effort to find an additional number of skilled ploughmen to assist in the autumn work. Ploughmen serving in the Army at home were to be sent out on two months' agricultural furlough, if they could be made available.

E. The Number of Soldier Labourers Employed.

It was not until 1916 that soldier labourers were employed in large numbers. Towards the end of August of that year it was stated in Parliament that under the new arrangement which had been advertized in the Press on 5 August (3) applications had been received up to midday on 9 August for 3,244 soldiers required to start work in the corn harvest (4). The number of men required for general purposes applied for under the previous arrangement, which still continued, was largely in excess of that number and was increasing from day to day (5). During the period 3 June to 28 July, 33,089 soldiers were applied for through the Labour Exchanges; these included many personal applications which could not possibly be granted, and 14,227 were supplied by the military authorities.

In the Spring of 1917, 18,000 Category "A" ploughmen were released on furlough for two months to assist with spring cultivation, and in the autumn of the same year, 1,500 ploughmen were given furlough for three months. For the harvest of 1917 leave was given to 17,000 soldiers (6).

In the first half of 1918 an inquiry was made into the wages and conditions of employment in agriculture and some of the investigators stated in their reports the number of soldiers employed at that time in

(1) *Journal of the Board of Agriculture*, December 1918.

(2) Notice issued by the Food Production Department of the Board of Agriculture on 16 October 1918 (*Journal of the Board of Agriculture*, November 1918).

(3) See above, page 235.

(4) Reply by the Parliamentary Secretary to the Board of Agriculture to a Question in the House of Commons, 21 August 1916 (*Journal of the Board of Agriculture*, September 1916).

(5) *Journal of the Board of Agriculture*, September 1916.

(6) *Journal of the Board of Agriculture*, December 1918.

different counties (1). Thus the number of soldiers employed in the East Riding of Yorkshire was reported to be 1,183; in the Lindsey Division of Lincolnshire, 1,049; in the Kesteven Division of Lincolnshire, 384; in Leicestershire, 1,149; in Rutland, 205; in Nottinghamshire, 843; in Derbyshire, 650; in Somersetshire, 1,580; in Cornwall, 977; in Gloucestershire, 1,170; in Worcestershire, 950; in Shropshire, 888; in Warwickshire, 1,156; in Staffordshire, about 1,000; in Cheshire, 1,350; in Lancashire, 1,541; in Cumberland, about 900; in the North Riding of Yorkshire, 941.

At the beginning of August 1918 the number of men in Agricultural Companies was about 70,000 (2) and shortly after the armistice it was stated in Parliament that there were over 79,000 men in Agricultural Companies and that 5,000 ploughmen who were in medical category A had just been sent out on two months' furlough (3). During the harvest 20,000 soldiers had been supplied, of whom about 3,000 were still engaged on potato lifting.

In December 1918 it was stated that apart from the men in Agricultural Companies there were 10,500 men temporarily engaged on seasonal work. There was one soldier employed on farm work to every nine civilian male workers (4).

In spite of the fact that the majority of men available had no previous experience of agriculture, the employment of soldiers proved a success. Under the training given to them by their employers the unskilled men quickly became useful farm hands (5). The Report on the Wages and Conditions of Employment of Agricultural Labourers stated that though unfavourable opinions had been expressed by individual farmers whose experiences had been unfortunate, there could be no doubt that the soldiers had as a whole afforded most valuable assistance to agriculture (6).

§ 3. PRISONERS OF WAR.

An important source of labour during the last two years of the War was found in the military prisoners of war. Arrangements were first made for their employment early in 1917 (7). A scheme was prepared by the Board of Agriculture, in conjunction with the Army Council, under which all suitable prisoners of war, both military and civilian, who had any experience of agricultural work were to be allotted to

(1) *WAGES AND CONDITIONS OF EMPLOYMENT IN AGRICULTURE. VOL. I: GENERAL REPORT VOL. II: REPORTS OF INVESTIGATORS.* London, 1919.

(2) *Journal of the Board of Agriculture*, August 1918.

(3) Reply by the Under Secretary for War to a Question in the House of Commons, 19 November 1918 (*Journal of the Board of Agriculture*, December 1918).

(4) *Journal of the Board of Agriculture*, December 1918.

(5) *Journal of the Board of Agriculture*, December 1918.

(6) Vol. I, page 48.

(7) Circular Letter, dated 16 January 1917, addressed by the Board of Agriculture to County War Agricultural Committees (*Journal of the Board of Agriculture*, February 1917).

the Board of Agriculture, as well a number of civilian prisoners of suitable physique who did not possess any previous agricultural experience.

The number available for England were to be distributed for agricultural work in the several counties in such numbers as the Board of Agriculture considered desirable. In the first place the Board would place 75 prisoners at the disposal of each County War Agricultural Committee, and any prisoners beyond this number would also be furnished in batches of 75. This was done with a view to economizing military guards. Arrangements were to be made for housing the prisoners in depots from which they could be sent in small working parties, consisting as a rule of not less than five men. Prisoners thus employed would remain under military control, guards being provided both at the depot where they were housed and for each working party.

In selecting the district in which the prisoners allotted to any county could best be used, the Agricultural Committees were urged to bear in mind —

(a) The necessity of some suitable building being available for use as a depot, in a central position, and capable of accommodating the prisoners, and with other accommodation near by for housing the guard, about 35 in number.

(b) That the prisoners could be employed only within a radius of about three miles from the depot, except in cases where special facilities were provided by employers or by the Government for the transit of prisoners and their guards beyond that distance.

(c) That it was necessary that there should be sufficient work within the radius to keep at least 65 of the prisoners employed for a period of not less than two months.

Application for prisoners of war was to be made to the Secretary of the War Agricultural Committee for the County.

The prisoners were to be fed and boarded by the military authorities. Employers would not be required to provide any food for them.

The rates of pay for day or piece work were to be fixed by the Executive Committee of the War Agricultural Committee with due regard to the rates of wage current in the locality for ordinary agricultural labourers. Two scales of pay were to be prepared, one for men having a previous knowledge of agriculture, and the other for the men lacking such experience. The scale when prepared was to be submitted to the Board of Agriculture for consideration.

The prisoners were only to be employed during the hours of labour customary for agricultural labourers in the district and no work was to be performed by them on Sundays, except the milking or tending of live stock, or attention to produce grown under glass, and this only provided the prisoner were not engaged for more than two hours in all.

Employers were required to pay the sum due for the hire of prisoners of war to the officer, or other authorized person, at the depot on the Monday or Tuesday following the week of employment.

Employers were not to be liable to pay compensation under the Workmen's Compensation Act.

In addition to ordinary work of cultivation, prisoners might be employed in connection with the scouring or clearing of water-courses and ditches where neglect of such work was likely to prove detrimental to adjoining agricultural land, or other useful work which had a direct bearing on the increased production of food stuffs in the immediate future.

Owing to the very large demands which were made by Government departments for the employment of combatant prisoners of war on work of urgent national importance, it was not found possible immediately to allocate prisoners for agricultural work under this scheme. Permission was, however, accorded to employ in agriculture a few prisoners who had been allocated to various forms of work, but could not for the moment be employed thereon (1).

In June 1917, however, arrangements were made whereby a considerable number of military prisoners was rendered available for agricultural work or for carrying out drainage schemes which were likely to increase production for the 1918 harvest(2). In special cases the size of the batches of prisoners could be reduced to not less than 40 men and the guard was calculated at one third of the number of prisoners sent.

Early in 1918 the Government decided that a large number of German prisoners, selected as being skilled ploughmen, should be sent to England to assist in the ploughing and subsequent cultivation of the additional land to be cropped in time for the 1918 harvest and a scheme was prepared by the Food Production Department of the Board of Agriculture (3). Groups of from 30 to 40 men were to be sent to four or five selected places in each county to assist with ploughing and other tillage operations within a radius of about five miles from each centre.

The group of prisoners was to be housed in suitable depots selected by the Food Production Department, after consultation with the Agricultural Executive Committees, and approved by the War Office. As far as possible centres were to be formed near a market town and railway station. The premises for housing the prisoners were to be acquired and adapted by the War Office, who would be responsible for the control, feeding, etc., of the prisoners.

The prisoners were to be guarded whilst at the depot, but during the day they would be sent out without guards in gangs of four or five to work under the supervision of an English soldier ploughman or policeman ploughman (who would take part in the work and be known as

(1) *Journal of the Board of Agriculture*, February 1917.

(2) Circular Letter, dated 20 June 1917, addressed by the Food Production Department of the Board of Agriculture to County War Agricultural Executive Committees (*Journal of the Board of Agriculture*, July 1917).

(3) Notice issued by the Food Production Department of the Board of Agriculture, and Memoranda, dated 22 January 1918 and 28 January 1918, issued by the Food Production Department to County War Agricultural Executive Committees. War Office Letter, dated 17 January 1918 (*Journal of the Board of Agriculture*, February 1918).

"gang foreman") with teams of horses supplied by the Food Production Department, or singly to farmers in the locality who were short of ploughmen. The necessary farm implements were to be supplied by the Food Production Department and forage for the horses by the Army Service Corps.

While the Country Agricultural Executive Committee would be responsible for organizing the work to be undertaken by gang teams (making contracts with farmers, collecting dues, etc.) they were recommended to delegate the work to the District Committee in whose area the depot was situated, or, if more than one rural district was served from the centre, to allocate the teams between the District Committees interested, making each responsible for keeping the teams allotted fully employed.

In order to give more time to the Executive or District Committees to organize the work, it was arranged to supply only half the number of horses in the first instance. This gave an opportunity of testing the proficiency of all the prisoners as ploughmen and of arranging for the exchange of any proved to be unskilled, before the remainder of the horses were despatched.

For work within easy reach of the depot the horses were to be stabled near at hand, but for work on land situated further away teams were to be stabled as near as possible to their work, and a soldier would be billeted near by to take charge of them.

The prisoners required to man the teams in outlying districts were to be transferred to and from the depot each day in some suitable vehicle or when possible by train. Whilst away from the depot they were to be in charge of the gang foreman and to be supplied with suitable rations for their midday meal.

For each depot a non-commissioned officer, not above the rank of corporal, was to be employed to supervise the despatch of gangs each day in accordance with the instructions received from the District Committee. He was also to be charged with the keeping of weekly records of the work done by each gang and of the forage issued, and with the care of implements, was to report cases of sickness among the horses and to be generally responsible for the discipline of the gang foremen. Any slackness or misbehaviour of prisoners while out at work was to be reported to the non-commissioned officer in charge of prisoners of war.

For ploughing undertaken at piece-rates the farmers were to be charged according to the scale already fixed for team ploughing, and for subsequent tillage operations according to a scale to be drawn up by the Agricultural Executive Committee and approved by the Food Production Department.

A farmer in the vicinity of a depot who desired the services of one or two prisoner ploughmen for a few days to work teams which would otherwise be standing idle was to be supplied with such men provided convenient arrangements could be made for handing over the prisoners each day to the farmer and for their return to the depot before dark. In such cases the farmer was to be made responsible for the safe custody

of the prisoners during the day, and was to pay the Executive Committee for their labour at the rate of $5\frac{1}{2}d.$ per hour.

Prisoners for whom horses had not been supplied could be employed in gangs of four or five on ordinary agricultural work, such as hedging, ditching, etc., within a five-mile radius of the depot. The farmer employing them was to be charged at the current rates payable locally for ordinary civilian labour, with a minimum of $5d.$ per hour.

Farmers desiring to employ prisoner of war ploughmen or agricultural labourers as whole-time workers, boarding and lodging them on the farm, were allowed to do so subject to the approval of General Officer Commanding in Chief of the Command. Not more than three prisoners of war could be allotted to any one employer without special sanction.

Under this scheme the farmer was required to employ the prisoners of war for at least a fortnight. He was to be responsible for their safe custody and was to take due precaution to prevent them from being interfered with by the inhabitants. He was to house them in healthy, comfortable and warm premises and to supply straw to fill palliasses as well as the necessary cooking utensils, crockery, artificial light, facilities for washing, etc. Clothing and bedding would be supplied by the Government. Three meals were to be provided per day and in no case on a less generous scale than that of an ordinary civilian farm labourer. In case of medical assistance being required the employer was to call in the local practitioner and the fees would be paid to the doctor direct by the State.

For the men's services the employer was to pay to the Commandant of the prisoners of war camp from which they were drawn at the minimum rate of 25s. per week, subject to deductions of (a) 15s. per week in respect of board and lodging, and (b) such further sum as the Commandant might direct to be paid each week by the farmer to the prisoner of war. The rate of payment to the State for overtime work was to be assessed by the Commandant after consultation with the Agricultural Executive Committee and would not be less than the local overtime rate for civilian labour.

The normal rate of pay for a prisoner of war was to be $1d.$ per hour. For those who had shown proficiency and industry the Agricultural Executive Committee could recommend payment at the rate of $1\frac{1}{2}d.$ per hour. Non-commissioned officers who volunteered for such work were to be given $2d.$ per hour. For overtime prisoners were to be paid at the usual hourly rate of working pay. No extra remuneration could be given to prisoners of war by their employers.

For the hay and corn harvests of 1918 special arrangements were made for the employment of prisoners of war (1). All prisoners in agricultural camps and at least 50 per cent. of the prisoners employed on land reclamation work were to be made available for harvest work. After the requirements of the neighbourhood had been supplied, the surplus were to be sent out in migratory gangs.

(1) Notice issued by the Food Production Department of the Board of Agriculture' 19 June 1918 (*Journal of the Board of Agriculture*, July 1918).

Government Departments employing prisoners were also asked to release as many as possible for harvest work. Such prisoners were to be employed as far as possible in the neighbourhood of their working camps, but any surplus would be available for employment in migratory gangs. Other prisoners, sent directly from parent camps, were to be temporarily placed by the War Office at the disposal of the Agricultural Executive Committees for the formation of additional gangs.

Each migratory gang was to consist of ten prisoners and two guards. The Executive Committee was to decide where each gang was to be located for harvest work, but gangs were not to be worked within five miles of the coast without the express sanction of the Area Commandant, nor in the vicinity of an aerodrome, munition works or other important military or naval station. Nor could they be worked in a neighbourhood served by a schoolboy camp or women's agricultural camp.

The Executive Committee was to select and secure accommodation for each gang consisting of not more than 12 (10 prisoners and two guards) in a suitable lock-up building with a sufficient supply of good water at a fixed price of 3*d.* per head per night. Where such accommodation could not be secured a suitable site for the erection of one or two tents was to be obtained at a cost not exceeding 1*d.* per head per night. Where gangs greater than 12 were required the local Quarters Committee was to be consulted as to their housing. The military authorities would provide the necessary tents and stoves and the prisoners would be provided with palliasses, blankets, mess-tins and cooking utensils.

Each farmer employing prisoners was to be required to provide a suitable mid-day meal at his own expense. Tea, coffee, cocoa or milk might be given, but not intoxicants. Apart from this meal, rations for the prisoners and guard were to be supplied by the military authorities.

The following charges were fixed for prisoner labour :--

(a) Whilst employed on hay harvesting: 4*s.* 6*d.* per day of 10 hours (excluding meal times).

(b) Whilst employed on corn or potato harvesting: 5*s.* 6*d.* to 6*s.* 6*d.* per day of 10 hours (excluding meal times).

(c) Whilst employed on ordinary agricultural work owing to harvest work being stopped in the locality: The existing rate of pay for prisoners employed on agricultural work in the county, less one halfpenny per hour to meet part of the cost incurred by the farmer in providing the mid-day meal and refreshments.

(d) When employed overtime on haysel or corn harvest: 8*d.* per hour

These charges were to be paid to a representative of the Agricultural Executive Committee, who handed over the amounts to the Commandants of the prisoners of war camps concerned after deducting the sums paid for the accommodation of prisoners and guard, and 1*s.* in the pound on the full amount received for the prisoners' work. The latter deduction was intended to meet the costs to which the Committee would be put in connection with the scheme.

Some modifications were made in this scheme a month later (1). The War Office were not able to agree to the mid-day meal being provided by the farmer and it was arranged that rations to include the mid-day meal should be provided by the Military Authorities. The Food Production Department of the Board of Agriculture requested that the ordinary scale of rations laid down for prisoners should be increased for men employed for long hours daily on harvest work.

The following revised scale of charges was fixed for prisoners when employed on corn or potato harvest work: 7s. for a day of 10 hours, excluding meal-times, in the counties of Cambridge, Essex, Huntingdonshire, Isle of Ely, Lincolnshire, Norfolk, Soke of Peterborough, Suffolk, the East and West Ridings of Yorkshire and Rutland, and 6s. for a day of 10 hours in the remaining counties of England and Wales.

In October 1918 there were 350 depots in various parts of the country from which prisoners of war were sent out daily for agricultural work (2). Each of these depots contained 30 or more prisoners of war. Many prisoners at the depots claimed to be skilled threshing machine drivers and feeders. It was, therefore, possible that threshing sets could be worked wholly by prisoner labour within a three to five-mile radius of the depots. If in any particular depot the skilled men required were not available, men of the required type could be transferred from another depot where there was a surplus. In the event of owners of idle machines being unwilling to employ prisoners as drivers or feeders, the Food Production Department urged the Agricultural Executive Committees to consider whether the machine should be taken over and worked by prisoner labour under their control.

Provision was also made for the formation of migratory gangs for threshing work. At the conclusion of the corn harvest the prisoners of war belonging to non-agricultural camps were withdrawn, but arrangements were made to replace them by prisoners from parent camps, and the gangs were allowed to remain out for any urgent agricultural work such as threshing (3).

For the employment of prisoners of war in migratory gangs a slightly revised scheme was issued in December 1918 (4). Hostilities having ceased, British civilian labour was becoming available by reason of the closing of the munition factories, aerodromes, etc., and care required to be

(1) Memorandum, dated 17 July, 1918, issued by the Food Production Department of the Board of Agriculture to County War Agricultural Executive Committees (*Journal of the Board of Agriculture*, August 1918).

(2) Notice issued by the Food Production Department of the Board of Agriculture, 11 October 1918 (*Journal of the Board of Agriculture*, November 1918).

(3) Memorandum, dated 25 October 1918, issued by the Food Production Department of the Board of Agriculture to County War Agricultural Executive Committees (*Journal of the Board of Agriculture*, November 1918).

(4) Memorandum, dated 6 December 1918, issued by the Food Production Department of the Board of Agriculture to County War Agricultural Executive Committees (*Journal of the Board of Agriculture*, January 1919).

taken that prisoner labour should not interfere with the employment of British civilians who desired to take up or return to farm work. Committees were accordingly urged to dispense with prisoners in any district where available civilian labour could be placed.

In the revision of the scheme which was made at this time, the principal modification was that payment for accommodation, fuel and lighting and any expenses incurred in the conveyance of the equipment and rations were to be made by the Agricultural Executive Committees, which could deduct these expenses from the moneys received in payment for the services of the prisoners before handing them over to the Commandants. In no case was more than *1d.* per head per night to be paid for accommodation.

A further slight modification in the scheme was made in February 1919, when it was laid down that where the farmer was responsible for guarding the prisoners of war during the hours of work, the rate payable by the farmer for their services might be reduced by *4d.* per day per prisoner and that a similar abatement might be allowed where prisoners of war were fetched over one mile by the farmer or by soldiers of agricultural companies in his employment (1).

The total number of prisoners of war employed on agricultural work in January 1919 was 30,679 (2). At the beginning of September 1919, when repatriation was decided upon, there were employed 19,319 prisoners going out daily to work from 321 agricultural camps, 1,735 prisoners boarded out with farmers, 1,008 prisoners sent out from parent camps, and 3,041 prisoners working in migratory gangs. The total number employed at that date was 25,103.

The general repatriation of prisoners was arranged to take place at the rate of 400 daily, but was seriously delayed by the railway strike. By December, however, all prisoners boarded out with farmers, or working in migratory gangs or from parent camps had been repatriated, as well as about 15,000 of the men working from the agricultural camps, of which over 200 had been closed. The remainder were repatriated as rapidly as circumstances permitted.

Though the Enquiry into Wages and Conditions of Employment in Agriculture revealed some difference of opinion amongst the farmers as to the value of prisoner labour, on the whole it appears to have given satisfaction. As was pointed out by the Investigator for Sussex, they were young, strong and efficient workers, many of whom had been accustomed to work on the land (3). The help given by the prisoners of war during the 1919 harvest went far to overcome the difficulties which arose through the withdrawal of the soldier labourers (4).

(1) Army Council Instruction, dated 25 February 1919 (*Journal of the Board of Agriculture*, March 1919)

(2) *Journal of the Board of Agriculture*, December 1919.

(3) *WAGES AND CONDITIONS OF EMPLOYMENT IN AGRICULTURE. VOL I: GENERAL REPORT*, page 50. VOL II: *REPORTS OF INVESTIGATORS*, page 341.

(4) *Journal of the Board of Agriculture*, December 1919.

§ 4. INTERNED CIVILIANS.

A small number of interned civilians (or, as they were officially called 'civilian prisoners of war') were also employed on the land. A scheme for their employment was prepared by the Home Office as early as June 1916 (1). It was proposed to choose certain civilian prisoners of war from the internment camps, who had good records and were trustworthy men as far as was known, to release them on parole and to send them on suitable conditions to such employers of agricultural labour in non-prohibited areas as might apply for them. The men chosen would not be German; they would be subjects of Austria-Hungary or of Turkey. They would be able to speak at any rate a little English, or if there were men otherwise suitable who could not speak English, it might be possible to arrange to send a small group of three or four with an interpreter. It would be possible in many, if not in most, cases to send men already accustomed to farm work. Where they were not accustomed the men would at any rate be able-bodied and used to manual labour.

The employer was to lodge the prisoner on his premises, to feed him, and to pay him at the usual rate paid in the district to English agricultural labourers, deducting the cost of his board and lodging at the rate of 10s. a week.

On receipt of an application a selected man would be despatched as quickly as possible to the applicant's address, free of cost to the applicant. Should the man in any way misconduct himself, or should the employer have other reasonable ground for wishing to terminate the employment, he was to inform the police, who would take the man back to camp, also free of cost to the employer.

The conditions of payment were slightly modified before the end of the year, the employer being allowed to deduct from the wages paid the cost of the man's board and lodging at the rate of 12s. 3d. per week (2). They were further modified in July 1917, when the Home Office agreed that when a man was paid a wage of 25s. a week or over, the amount to be deducted in respect of the cost of board and lodging might be increased to 15s. a week (3).

The provision whereby civilian prisoners could not be employed in prohibited areas was modified in May 1917 to the extent that, although they could not be released for work in prohibited areas in counties on the East Coast, their employment in prohibited areas elsewhere would be con-

(1) Memorandum prepared by the Home Office and sent on 26 June 1916 by the Board of Agriculture to County War Agricultural Committees (*Journal of the Board of Agriculture*, July 1916).

(2) Notice issued by the Board of Agriculture, 12 December 1916 (*Journal of the Board of Agriculture*, January 1917).

(3) Memorandum, dated 25 July 1917, issued by the Food Production Department of the Board of Agriculture to County War Agricultural Executive Committees (*Journal of the Board of Agriculture*, August 1917).

sidered, provided certain special conditions were observed (1). At this time it was stated that there were over 500 civilian prisoners employed in agriculture.

The interned civilians gave every satisfaction to their employers. The farmers stated that the men were invariably willing and useful and gave no trouble whatever (2).

J, K. M.

(To be continued).

(1) *Journal of the Board of Agriculture*, May 1917

(2) Notice issued by the Board of Agriculture, 12 December 1916 (*Journal of the Board of Agriculture*, January 1917).

THE INTERNATIONAL INSTITUTE OF AGRICULTURE

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The International Institute of Agriculture was established under the International Treaty of 7 June 1905, which was ratified by forty governments. Nineteen other governments have since adhered to the Institute,

It is a Government institution in which each country is represented by delegates. The Institute is composed of a General Assembly and a Permanent Committee.

The Institute, always confining its attention to the international aspect of the various questions concerned, shall :

(a) collect, study and publish as promptly as possible, statistical, technical, or economic information concerning farming, vegetable and animal products, trade in agricultural produce, and the prices prevailing in the various markets ;

(b) communicate the above information as soon as possible to those interested ;

(c) indicate the wages paid for farm work ;

(d) record new diseases of plants which may appear in any part of the world, showing the regions infected, the progress of the diseases, and if possible, any effective remedies ;

(e) study questions concerning agricultural co-operation, insurance and credit from every point of view ; collect and publish information which might prove of value in the various countries for the organization of agricultural co-operation, insurance and credit ;

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PRINCIPAL WEIGHTS, MEASURES AND MONEY OF THE VARIOUS COUNTRIES AND THEIR BRITISH EQUIVALENTS

1 Cadastral arpent (Hungary)	=	1.42291	acres
1 Centimetre	=	0.393715	inches
1 Cho (60 ken) (Japan)	=	119.30327	yards
1 Crown 100 heller) (Austria-Hungary)	=	10 d.	at par
1 Crown (100 öre) (Denmark, Norway, Sweden)	=	15.1 $\frac{1}{8}$ d.	at par
1 Deciatine (2 tchetwert, Russia)	=	2.69966	acres
1 Dinar, gold (100 para) (Serbia)	=	9 $\frac{3}{14}$ d.	at par
1 Dollar, gold (\$) (100 cents) (United States)	=	48. $\frac{1}{10}$ d.	at par
1 Drachm, gold (100 lepta) (Greece)	=	9 $\frac{13}{64}$ d.	at par
1 Egyptian Kantar	=	99.0498	lbs.
1 Feddan Masri (24 Kirat Kamel) (Egypt)	=	1.03805	acres
1 Florin, gold, or Gulden (100 cents) (Netherlands)	=	15.7 $\frac{3}{4}$ d.	at par
1 Franc (100 centimes) (France)	=	9 $\frac{33}{64}$ d.	at par
1 Gramme	=	0.03527	oz.
1 Hectare	=	2.47109	acres
1 Kilogramme	=	2.2	lbs.
1 Kilometre	=	1093.613	yards
1 Kokou (10 To) (Japan)	=	1.58726	quarts
1 Lei, gold (100 bani) (Rumania)	=	9 $\frac{8}{64}$ d.	at par
1 Leu (100 stotinki) (Bulgaria)	=	9 $\frac{33}{64}$ d.	at par
1 Lira (100 centesimi) (Italy)	=	9 $\frac{33}{64}$ d.	at par
1 Litre	=	{ 0.21998	gallons
		{ 0.0275	bushels
1 Mark (100 Pfennige) (Germany)	=	11 $\frac{3}{4}$ d.	at par
1 Mark (100 penni) (Finland)	=	9 $\frac{33}{64}$ d.	at par
1 Metre	=	3.28084	feet
1 Milreis, gold (Brazil)	=	28 $\frac{261}{64}$ d.	at par
1 Milreis, gold (Portugal)	=	48. $\frac{519}{64}$ d.	at par
1 Peseta, gold (100 céntimos) (Spain)	=	9 $\frac{33}{64}$ d.	at par
1 Peso, gold (100 centavos) (Argentina)	=	35.1137 $\frac{1}{64}$ d.	at par
1 Peso, paper (Argentina)	=	18.8 $\frac{25}{100}$ d.	at par
1 Pound, Turkish, gold (100 piastre) (Ottoman Empire)	=	188.015 $\frac{1}{64}$ d.	at par
1 Pund (Sweden)	=	0.93712	lbs.
1 Quintal	=	1.96843	cwt.
1 Rouble, gold (100 kopeks) (Russia)	=	28.1 $\frac{3}{8}$ d.	at par
1 Rupee (16 annas) (British India)	=	$\frac{1}{10}$	of £1 (gold)
1 Talari (20 piastre) (Egypt)	=	48.1 $\frac{1}{32}$ d.	at par
1 Verst (Russia)	=	1166.64479	yards
1 Yen, gold 2 fun or 100 sen) (Japan)	=	28.037 $\frac{1}{64}$ d.	at par
1 Zentner (Germany)	=	110.23171	lbs.

INTERNATIONAL INSTITUTE OF AGRICULTURE
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INTERNATIONAL REVIEW
OF AGRICULTURAL ECONOMICS

(MONTHLY BULLETIN
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Co-operation and Association

PORTUGAL.

MEASURES RELATING TO AGRICULTURAL CO-OPERATION
DURING THE WAR AND THE FIRST YEARS AFTER IT.

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The aim of the present enquiry is the examination of the various measures that have been adopted in Portugal, during the European war and in the first years after the war, in respect to agricultural co-operation, with the object of encouraging the spirit of association in the rural classes and thus of rendering more intensive the national agricultural production.

Before proceeding to this enquiry it will not be out of place to say a few words about the origin and development of agricultural co-operation in Portugal and about all those forms of similar associations that are engaged in the task of increasing cultivation, among which the co-operative agricultural credit banks and the agricultural syndicates occupy the first place.

The first forms of co-operation in Portugal date back to very early times, and had as objective labour of one kind or another. Of these rudimentary co-operative societies there are still some examples in the provinces of Douro and Minho, consisting of associations of a limited number of persons who have at their disposal enough capital to make it possible for them to buy the necessary raw material for the manufacture of a certain product, and also to hire a small piece of land on which to carry on their industry. Once the goods are finished, they are divided between the members and the association is dissolved.

In addition to these early forms of co-operative societies, which are so in the full sense of the word, we find, on pushing our enquiry back into history, other organizations and associations, which though not co-operative in the strict sense of the term have nevertheless mutual aid in view in respect to the rural population and to agriculturists. The influence of these organizations on rural economy has been most valuable, as they have formed as it were a bridge between the primitive forms of co-operation and the more modern forms represented by the co-operative agricultural credit banks already mentioned.

The associations to which we have just referred are the *Misericórdias* and the *Celleiros*.

The *Misericórdias*, a royal foundation, date from 1498. Their aim was the succouring of the poor, the sick and prisoners. By a decree of 22 June 1778 the *Misericórdia* of Lisbon was empowered to grant loans to any person who should be prepared to undertake the clearing land. These powers were afterwards extended to all the *Misericórdias* of the Kingdom by the laws of 22 June 1866 and of 27 July 1877. They were

authorized to open actual credit banks which had power to grant loans, guaranteed either by a pledge, or by securities, or by a mortgage.

The *Celleiros*, founded some years later, were charitable institutions of the regular kind, established for the object of advancing the farmers a certain quantity of cereals which was to be repaid at the end of the year with a fixed quantity more as interest. The decrees of 14 October 1852 and 20 July 1854 reorganized them and altered their constitution. They acquired the character of true agricultural *Monts-de-Piété* and transformed their loans in kind into loans in cash. Their operations were further extended by the decree of 30 September 1892 to the sale of fertilizers to farmers.

It was enacted by another law of 7 July 1898, that the administration of the *Celleiros* was to pass into the hands of societies devoting their capital to the benefit of agriculture. The same law authorized loans for periods of eleven months for purchase, sale and hire of agricultural implements.

The societies were also authorized to set up General Agricultural Warehouses.

The law of 1898 granted to municipalities and to parish councils, administering the *Celleiros Communs*, special privileges such as permanent exemption from duties of every kind, transport facilities, free analysis in the State laboratories of produce stored, etc.

Among the first forms of co-operative societies are the savings banks and credit banks, which might be real co-operative societies with limited or unlimited liability, a fixed or variable number of members and an initial capital built up by the share subscriptions of members. They took charge of the deposits of their members and of other persons, and paid a fixed interest on such deposits, and in their turn they granted loans but only to their members. On these loans they charged an interest a little above what they allowed on deposits. Usually there was no dividend for the members, for in the majority of cases the profits went to benevolent schemes and to building up reserves.

The first of these banks was founded in 1856 at Angra do Heroísmo in the Azores, and is still in existence, as is that of Aveiro, also an old foundation.

Among the other forms of associations, we will mention the co-operative vinegrowers' societies (*Caves sociaes*), established by decrees of 14 June and 27 September 1901, with the aim of improving the making of wine, and the Co-operative Union of Portuguese Vinegrowers, originating from the laws of 18 September, 1 October and 1 December 1908.

There has been no great development of any of these different forms of agricultural co-operation but they have given rise to two great systems of agricultural co-operation and association, represented by the co-operative agricultural credit banks and by the agricultural syndicates. The first are properly speaking co-operative societies operating exclusively in the sphere of agricultural credit. The second, though not constituted in co-operative form, are agricultural mutual aid associations, which

undertake extensive and valuable co-operative business, in conjunction with the banks, with which, as we shall see, they have a close connection.

We will now examine separately the organization of these institutions, as based on the laws that brought them into being, and as affected by the measures adopted by the Portuguese government during the war.

§ I. THE CO-OPERATIVE AGRICULTURAL CREDIT BANKS: THEIR ORGANIZATION AND THEIR WORKING.

The institutions of a co-operative type and the associations we have mentioned were obviously inadequate to meet the needs of agriculture and although measures were constantly passed for their better organization, it was generally realized that new organizations were needed, likely to promote extended cultivation and the employment of more modern methods of tilling the soil.

The law of 18 September 1908, article 49, was framed to meet these needs. It was there laid down that an agreement was to be made between the Government and the Bank of Portugal, with a view to the creation in the latter of a special department for agricultural credit operations. With this object, the law in question increased the total amount of notes in circulation, allowing the Bank to issue 385,000,000 instead of 360,000,000, it being understood that the additional amount was to be kept for agricultural credit operations.

This same law also fixed the rate of interest on the loans, as not to exceed five per cent., and it was also laid down that the period of the loans was not to be more than six months. This term could be renewed for a period of six or three months, when special circumstances called for such extension.

The power conferred by the articles of this law was exactly what was needed to bring the most competent persons in Portugal to the point of finding a speedy solution to the problem of agricultural credit, a problem which concerned the economy of the whole country. In fact after various proposals which for special reasons did not become formulated as law, the decree of 2 March 1911, drawn up by the Minister of *Fomento*, Signor Brito Camacho, and MM. D. Luis de Castro, the younger Morcira, and Joato H. Ullrich, was well received and passed. But many difficulties ensued when this decree, thoroughly modern in conception, was put into application. This was due to the distrust with which the rural classes regarded the innovations it introduced. Another decree, therefore, dated 30 June 1914, while not discarding the principles that informed the earlier decree, brought in new provisions, intended to facilitate the development of agricultural credit, through the medium of the banks of which we have already spoken.

The co-operative agricultural credit banks were founded by the decree of 2 March 1911, already mentioned, amended by the law No. 215 of 30 June 1914, in accordance with the suggestions made by the competent authorities to the Government in consequence of the results of the application of the first decree.

They are of the nature and character of co-operative societies with unlimited membership, and they can be constituted under any of the following forms :

1. Banks with liability limited to members' capital.
2. Banks with unlimited joint and several liability of all the members.
3. Banks with mixed liability limited for some of the members and unlimited for the other members.

Membership of these banks is open to :

1. Agriculturists genuinely working on land within the same administrative area as the bank and eligible for membership of an agricultural syndicate in operation in the same district.
2. The agricultural syndicates in operation in the locality of the headquarters of the bank.
3. All the agricultural associations whose sphere of action lies within that of the bank, eligible for membership of the local agricultural syndicate, and not receiving nor having the right to receive special subsidies from the State, and unable to apply more than 50 per cent. of their profits to their funds.

The objects of these banks are :

1. To lend members the capital they require, strictly for agricultural purposes ;
2. To receive as loans from the State, from members or from other persons, capital for employment in agricultural credit operations ;
3. To receive money on deposit, for withdrawal on notice or at sight, equally from members or from other persons, as against payment of interest at an agreed rate, not exceeding four per cent. per annum.

Capital. — In conformity with the two constituting laws, the capital of the co-operative agricultural credit banks is represented :

1. For the banks with unlimited liability, by the contributions and entrance fees paid by members, by profits accruing from loans made to members, by bequests, gifts, grants or subsidies, which they receive gratuitously.
2. For the banks with limited liability, by the society's capital as represented by the share certificates issued by the banks, by half the profits accruing from the loans made to members, by bequests, by gifts, by grants and subsidies, received gratuitously.
3. For the banks of a mixed type, the capital is made up of contributions and entrance fees paid by the members whose liability is unlimited, of the capital represented by the share certificates issued, half of the profits accruing from loans made to the members, and of bequests, gifts, grants or subsidies received gratuitously.

Whatever its form of constitution, no bank may ask for or accept capital of which the total exceeds the amount of the society's credit.

Credit Basis. — The basis of credit of the co-operative agricultural credit banks varies according to the form of constitution :

1. For banks with unlimited liability, the basis of the society's cre-

dit is the sum of the capital of the bank in question and half the value of the rural and urban property of the members, offered by them in accordance with the special rules laid down by the law;

2. For co-operative agricultural credit banks with limited liability, the basis of the society's credit is double amount of its capital,

3. For banks of a mixed type the basis of the society's credit is double the capital of the bank, the contribution and entrance fees paid by the members whose liability is unlimited, half the value of the rural and urban property belonging to the members with unlimited liability and offered by them in accordance with the provisions of the law;

Loans to Members. — Sums lent by the banks to their members can only be applied as follows:

1. Purchase of seed, of plants, of insecticides, of fertilizers, of fodder, of implements, of carting requisites, of vaccines, serums and other materials required in the care of livestock;

2. Payment of wages of farm hands, whether by the day or otherwise;

3. Payment of dues, rent and other charges falling on agricultural undertakings, payment of duties and land-taxes on cultivated lands;

4. Payment of mortgage debts, not exceeding 1000 \$ in amount, the interest on which is more than six per cent. encumbering rural property and also the redemption of rents on land held in emphyteusis provided that, including the percentage payable to the head-landlord when the emphyteusis is sold and other dues, they do not exceed 400\$.

5. Discounting of warrants issued on farm produce, stored in the General Agricultural Warehouses.

6. The carrying out of work that by increasing the value of the property makes the farming of it more profitable.

Loans to Associations. — Sums lent by banks to affiliated associations can only be applied as follows:

1. To production, manipulation, preservation, improvement and sale of agricultural produce, to the insurance of agricultural machinery, plant, produce, live-stock, or to the payment of losses incurred in cases when the associations are exclusively agricultural insurance societies;

2. To the purchase, upkeep, use and improvement of plant for agricultural industries warehouses, work-shops and carting requirements;

3. To the purchase of implements and machinery necessary for farming operations carried on collectively.

Duration of the Loans. — By the terms of the law No. 215, 1914, the duration of the loans is one year for loans made to agriculturists under heads 1, 2, 3, 5, and for those granted to associations under heads 1 and 3, renewable for another year when circumstances demand: the period is fifteen years for loans made to agriculturists under heads 4 and 6, and for loans to associations under head 2.

Rate of Interest on the Loans. — The rate of interest on the loans made by the co-operative agricultural credit banks to their members cannot exceed five per cent. per annum. No interest is paid on loans for the payment

of mortgage debts, for the carrying out of operations calculated to increase the value of the property, or for the purchase, upkeep, and improvement of plant for agricultural industries, warehouses, etc. The interest and sinking fund, taken together, must not exceed six per cent. per annum, in the case of loans made for a period of 15 years.

State Funds for Agricultural Credit. — By the terms of the laws establishing agricultural credit, the Government puts at the disposal of this credit a Special Fund consisting of the credit opened by the Bank of Portugal for the Council of Agricultural Credit with the guarantee of the State, and up to a certain sum fixed by agreement with the Government. This sum must be divided among the banks and devoted exclusively to agricultural credit operations.

There is besides a Reserve Fund, created by the law No. 215 dated 30 June 1914, and modified, as we shall see later, by another decree.

This reserve fund is intended to cover losses that may have been incurred by the State over credit operations undertaken in pursuance of the law. The said fund is built up from the profits accruing from the operations carried out by the co-operative agricultural credit banks, with a deduction for the charges and commission by the provisions of the law due to the Bank of Portugal.

The co-operative agricultural credit banks are under liability to repay the State in full the capital sums lent to them. The guarantee as regards the State is the society's capital.

State Inspection and Control. — By the terms of the two laws of 1912 and 1914, a special commission called *Junta de Crédito agrícola* has the task of dividing the special agricultural credit funds among the banks, of supervizing the application of the grant, and of overlooking all agricultural credit institutions organized and regulated by the law. This commission is composed of a member of the Upper Council of Agriculture, a member of the Central Association of Portuguese Agriculture, a member of the Society of the Agricultural Sciences, a member of the Portuguese Society of Veterinary Medicine, and of three managers of co-operative agricultural credit banks.

Area of Operations of the Banks. — The co-operative agricultural credit banks have a local character and their sphere of action cannot go beyond the limits of the commune. However, the constituting law authorizes the federation of banks of several communes of the same district, the establishment of district banks and the federation of these latter, so as to form a central agricultural credit bank with a Lisbon office and working in close connection with the Central Association of Portuguese Agriculture.

§ 2. MEASURES TAKEN DURING THE WAR ON BEHALF OF THE CO-OPERATIVE AGRICULTURAL CREDIT BANKS.

After this brief description of the organization and working of the co-operative agricultural credit banks, and of the statutory regulations governing them in accordance with the pre-war legislation, we shall now

examine the measures adopted during the war and immediately after to meet the special needs of agriculture created by the exceptional emergency.

Measures in respect to State Funds for Agricultural Credit - Experience had shown that the capital put at the disposal of the banks by the State was insufficient to meet the increased demands for money, on the part of the banks, for the loans they had to negotiate with the agriculturists, who found it imperative to resort to credit on account of the rise in the price of certain indispensable adjuncts to agriculture. Thus by the law of 30 June 1917, No. 719, the Special Fund for Agricultural Credit, which by the terms of the decree of 2 March 1911 came to 1,500,000\$, was raised to 2,000,000\$. This increase, however, was not enough to meet the credit demands of the banks, and so by another decree of 25 May 1918 this fund had to be raised to 5,000,000\$.

The regular working of the agricultural credit banks, and the punctual repayments made by the banks to the State, pointed to the reduction of the Reserve Fund, which, as we have said, had been created by the decree of 2 March 1911, at the rate of 200,000\$, and then kept at that level by the amending law No. 215 of 30 June 1914. As a matter of fact, during a period of more than eight years, and with a turn-over of 5,615,981.86\$, there had never been any loss affecting the State, either as regarded capital or interest.

This reduction was provided for by the decree No. 4,022 of 29 March 1918 fixing this fund at 20,000\$. Simultaneously with the reduction of the Reserve Fund and by the law we have just mentioned, a new fund was created called the Auxiliary Fund for Agricultural Credit, intended to be used in the same way and with the same objects as the Special Fund, except that preference was to be given to loans applied for by members and co-operative societies intending to carry out land improvement works.

The Auxiliary Fund is built up as follows: the interest paid from State capital by the co-operative agricultural banks on the loans made to them by the Directorate of Credit and Social Agricultural Institutions, this after first paying the incidental charges and the commission that is legally due to the Bank of Portugal; then the interest accruing on the capital forming the Reserve Fund lying at the Portuguese Savings Bank. In spite of the increase of the Special Fund and the institution of the Auxiliary Fund, the agricultural credit needs became more and more urgent, and the Government thought it advisable to create a third fund of a supplementary nature.

Provision for this was made by the law No. 6,925 of 30 September 1920, putting at the disposal of the Directorate of Credit a fund not exceeding 5,000,000\$, for making loans to the banks and at their request. This fund was placed on deposit in the Bank of Portugal and the Directorate can only make use of it when the Special Fund is depleted below 250,000\$.

The profits from the investment of the capital of this fund, after deducting the bank commission, are placed to the credit of the State.

Facilities and Additional Concessions made to the Co-operative Banks. — One of the first measures passed by the Government for the benefit of the agricultural credit banks takes into account the event in which the banks cannot meet their payments to the State, because their members have not repaid their debts punctually, in which case the bank concerned should employ force in respect to the said members. It is understood that the bank is directly responsible to the State for the payment of the capital sums lent from the Agricultural Credit Fund, and that they are expected to make the payment whether or not they have had the money from the member who owes it.

In the face of this undeniable moral and legal obligation, for the fulfilment of which the society is liable, it is the duty of the management, in the event of a member not paying his debt when it falls due and in view of the joint liability of the members of the association, to proceed to the division of the total amount of the debt among the remaining members, so as to pay the sum due to the State or any other creditor, and after that to enforce full repayment on the defaulting member.

To avoid these consequences the decree already mentioned, No. 4,022, article 18, enacted that on the filing of the application of the bank concerned, addressed to the Council of Credit and of Social Agricultural Institutions, in the case when there might have to be forced recovery of the debt from the members, or even court intervention, the payment of the debt to the Government shall only take place after the ruling of the court has been put into execution, or after the lapse of a certain time to be fixed by the Council.

In making this concession, the State capital is not involved in any risk for by the terms of the law not only is the liability of the association and the members continued together with the securities and the privileges which the same law lays down in respect of debts to the State, but the solvency of the association is further secured, since the Directorate continues to exercise control, and, at any moment, subject to the moratorium agreed on by the Council, the recovery of the capital in question can be enforced.

This concession also covers the cases in which, owing to the death of the debtor, payment has to depend on the results of legal probate.

Another measure passed during the war deals with the augmenting of the funds advanced by the State to the banks.

The development of co-operative agricultural credit and the extensive loans granted during the war resulted in a depletion of the funds at the disposal of the banks for loans to agriculturists. Hence it became necessary for the State to make provision for advancing funds on a larger scale, so that the banks might be enabled to continue their valuable work for agriculture, of even more importance during the first years after the war. With this object, provision was made as follows by the decree already mentioned of 10 September 1920, No. 6,925:

1. That the concessions made to the co-operative agricultural banks with unlimited liability, whether from State funds or from

other funds placed for this purpose at the disposal of the Directorate of Credit and of Social Agricultural Institutions, should be limited to the capital of the bank concerned fixed as before, that capital however, being increased by the total value of the rural and urban property, not encumbered with mortgages, belonging to the members, instead of, as in previous measures by 50 per cent. of the value only: this value however not to be more than fifteen times the land tax on the said property after deducting the dues attaching to the emphyteusis, sub-emphyteusis, the quit rents, etc.

2. That the credit concessions to co-operative agricultural banks, organized on a mixed basis as to liability, when made by means of the above mentioned funds, may as before amount to double the capital of the bank, with the addition of the value of the rural and urban property not encumbered with mortgages, belonging to the members who have accepted unlimited liability.

Revised Provisions in regard to Loans to Agriculturists. — The exceptional conditions brought about in agriculture in consequence of the war decided the Government to allow loans to be granted for longer terms. Such provision was made by the decree No. 4,022, 29 March 1918 and by another decree No. 4,902, 11 October 1918. The term of one year allowed for loans by the constituting laws, was extended to two years, with the option of renewal for another year. The same provisions apply to the credit granted to the co-operative agricultural credit banks by the Directorate of Credit and of Social Agricultural Institutions. Another measure of importance deals with the increase of the sum that the bank can grant as a loan for the extinction of mortgage debts the interest of which exceeds six per cent. This sum, which could not exceed 1,000\$ by the terms of the law No. 215 (1912), may by the provisions of the decree No. 4,022 (29 March 1918) be as much as 3,000\$.

The rate of interest on loans to co-operative agricultural banks, the dates of repayment, renewals, repayment and recovery of debts, remain as before.

Security for Loans and Insurance of Goods Given in Pledge. — As we have already said, the guarantee required by the bank from members may consist of securities, a pledge, a mortgage, the deposit of securities, or the discount of warrants. It is to be remembered too that the law No. 215 required that no member should obtain from the co-operative bank in which he was enrolled, the loan of a sum exceeding 50 per cent. of the value of the personal security, the pledge, the mortgaged lands or the securities deposited, or exceeding 25 per cent. of property whether freehold or allodial belonging to him or to his sureties. These provisions have been further defined by another decree, No. 5,219, dated 8 January 1919. It was in fact laid down that no member could apply to the co-operative bank in which he was enrolled, on the guarantee of securities, for a loan of a sum exceeding the quarter of the value of property free of mortgage and belonging to him or to his sureties, the value of the property being fixed by the directing body of the bank in accordance with rules laid down by the law. As regards loans made

against the security of a pledge, no member can obtain a loan from the co-operative agricultural credit bank to which he belongs of more than 50 per cent. of the value of the pledge offered. The bank has power to fix the value of the movables and live stock serving as pledge.

As regards loans guaranteed by the deposit of securities or by a mortgage the new law re-enacts that no member can obtain from the co-operative agricultural credit bank in which he is enrolled more than 50 per cent. of the value of the securities deposited, or of the lands mortgaged, or of any such securities or lands as may have been offered on his behalf by a third party, in accordance with the provisions laid down.

Other modifications, introduced by the decree No. 1, 4022 and the law No. 215 of 1914, deal with the compulsory insurance of the goods and of the valuables which serve as guarantee for loans.

The above mentioned law rigidly required that the insurance should come into force at the time the loan agreement was made, without taking into consideration the nature, the circumstances of these goods or the risks attaching to them.

In order to obviate the possible results of the strict application of this law, the Agricultural Credit Council as long ago as 1916 had explained to the Ministry of *Fomento* of that time the necessity for a modification, whereby the expense of insuring in such circumstances should not be out of proportion to the advantage derived from the insurance, according to the kind of damage likely to occur. A proposal was then made on these lines to Parliament, dated 27 April 1916: it had the unanimous support of the Commission of Agriculture, but although it was discussed on 1 February 1917 no vote was taken.

It was remarked in connection with this that the compulsory insurance usually involved useless expense and trouble, often putting obstacles and difficulties in the way of loans on pledge or on deposit of securities.

In fact, there was no insurance company that would undertake to insure against the more serious or more frequently occurring risks and accidents affecting crops and agricultural produce already warehoused. In consequence the agriculturist had to confine himself to effecting insurance against fire, the form of disaster which is least likely and, indeed, is hardly probable at all, considering the nature of the goods and the protection usually afforded them.

The most probable and most frequent losses, those resulting from plant parasites, theft, storms, etc. were not covered in any way. However the decree No. 4,022 of 29 March 1918 very properly enacted that insurance of the pledges and valuables guaranteeing agricultural credit loans is only compulsory in respect of risks to which the objects forming the pledge are liable and which are specifically undertaken by the insurance companies or mutual insurance societies.

The law does not do away with the character of the insurance, but establishes conditions by which insurance becomes an effective guarantee, not involving the borrower in useless expense.

Compulsory insurance, as established by the decree No. 4,022 and in the

circumstances explained, does not imply any obligation on the part of the borrower to insure at the time of the loan agreement, provided that the goods offered as security are not at the time incurring any risks considered as such by any insurance companies or mutual insurance societies.

If, however, they are at the time of the agreement already subject to insurable risks, or if they become subject to such risks while the agreement is in force, then such insurance as may be required by the nature, circumstances and actual condition of the pledges or valuables will be obligatory from the commencement of the loan, or from the date fixed by special clause of the contract.

Extension and Development of Co-operative Institutions. — Of special importance are the provisions in the decree mentioned, No. 4,022, of 29 March 1918, which, partially modifying as they do the law No. 215 of 1914, are intended to promote the establishment of true co-operative societies by means of the transformation of associations already in existence. The decree, in fact, empowers all agricultural associations already existing to take on the character of co-operative societies and of agricultural and stock-breeding insurance societies. To ensure this, the associations must not be limited in membership, and must aim not only at agricultural co-operation in labour, in the production, manipulation and disposal of the produce of their members, but also at the institution of mutual insurance for agriculture and stock-breeding.

The law, quoted above, lays down the general lines of working of the proposed co-operative societies, while modifying some of the provisions of the law No. 215, of 30 June 1914 and more closely defining others.

Once the co-operative agricultural credit banks were established in the mainland of Portugal it was soon felt that there was an equal need for them in the islands. It is true that articles 78 and 81 of the law of 1 March 1911 and of the law No. 215 of 30 June 1914 gave authority for extending to the adjacent islands the legislation in force as to co-operative agricultural credit, but this authority was not applied. On the representations of agriculturists there was published in 1917 the decree No. 3,474 of 22 October to the same effect but for various reasons it was not put into execution. The question was re-opened in 1918, and another decree with the force of a law was published, No. 4,124 of 8 April of that year, by which the legislation in force on co-operative agricultural credit was extended to the adjacent islands, with other provisions referring to the co-operative movement.

The decree No. 5,219, of 8 January 1919 consolidates all the legislation referring to co-operative agricultural credit, to agricultural and stock-breeding syndicates, as well as to their unions and federations, and two new decrees, those of 27 February 1919, No. 1,729, and 9 June 1919, No. 1,832, approve the registration and model statutes for such organizations.

Bodies Exercising State Control and Inspection. — Finally we note that the legislation on co-operative agricultural credit, complex as it is, has made clear the necessity for a direction and an inspection more complete and more enlightened, and for a better organization of the public offices

in charge of this important service. To meet this need a Ministry of Agriculture was organized by the decree No. 1,249 of 8 May 1918 and the Council of Agricultural Credit, created by the decree-law of 1 March 1911, was done away with. All the duties and powers conferred on the latter passed by the provisions of the law No. 5,787 P of 10 May 1919 to the Directorate of Credit and of Social Agricultural Institutions, which now bears the name of the General Directorate.

By the terms of the legislation in force, therefore the General Directorate of Credit and of Social Agricultural Institutions has under its charge not only all the agricultural credit institutions of the mainlands and the adjacent islands, but also everything relating to the organization, the working and the oversight of syndicates whether agricultural or stock-breeding, co-operative mutual insurance societies for agriculture or stock-breeding, and their unions and federations, alike on the mainland and in the adjacent islands. It has also to undertake the oversight of agricultural societies engaged in administering State grants or those of local government bodies. The decree No. 4,523, of 30 May 1918, consolidates the measures relating to the functions of the Directorate of Credit and the Social Agricultural Institutions.

§ 3. OPERATIONS OF THE CO-OPERATIVE AGRICULTURAL CREDIT BANKS.

Following on the account of the legislative measures taken by the Government between 1915 and 1920 in regard to the co-operative agricultural credit banks we shall proceed to furnish some figures as to their working.

On 30 June 1920 there were on the mainland 93 co-operative agricultural credit banks and in the islands only one. They were distributed as to the years of their foundation as follows :

Years	Number of banks
1915.	48
1916.	13
1917.	21
1918.	7
1919.	1
1920.	4

As regards their form of constitution, 89 are societies with unlimited liability, three with limited liability and two with both kinds. In actual working order there are 60 banks with unlimited liability, but only one with limited liability. Up to 1920, no banks with liability of both kinds had begun operations.

We will now examine what has been the business done by these banks with the aid of the capital granted them by the State up to 30 July 1920.

The grants made by the State to the banks in the form of loans, from

the beginning of operations up to 1920, amounted to 5,615,981 86\$. With this sum the banks made 8,730 loans to agriculturists. Other loans to the number of 1,973 have been made by the banks from their own capital, to a total of 4,330,184.53\$. Thus the number of loans made by the banks to agriculture is 10,703 for a total of 9,946,166.39\$

Out of the 8,730 loans made by the banks with the State funds, up to 30 June 1920, 6,779 amounting to 3,930,324 98\$ had been repaid. There remained therefore 1,951 loans amounting to 1,685,453 88\$ to be repaid in the financial year 1920-21.

Out of these loans, 8,566 were granted, for short terms and for long terms. They were secured as shown in Table, I, which also shows the security upon which loans were granted by the banks out of their own capital.

TABLE I. — *Loans made by the Banks with State Capital, and Loans made by the Banks with their own Capital up to 30 June 1920.*

Security		Loans made with State capital		Loans made with bank capital	
		Number of loans	Total \$	Number of loans	Total \$
Short term	personal security . . .	4,194	3,082,629.66	1,192	3,036,012 68
	mortgage	1,274	546,624.96	105	64,349 00
	pledge	2,627	1,741,447.82	369	329,097.85
	securities	171	107,728.00	7	725 00
Long term		164	137,551 42	—	—
Totals . . .		8,730	5,615,981 86	1,973	4,350,181.52

The addition of the figures in Table I gives the total already stated, of 10,073 loans to the amount of 9,946,166.39\$. Loans for long terms appear, in relation to the total, in the ratio of 1.5 per cent., as regards number and in the ratio of 1.3 per cent. as regards amount.

In Table II (page 277) are shown the loans granted with State capital by the co-operative agricultural credit banks to the agricultural syndicates up to 30 June 1920.

These loans were made for the purpose of purchase of land for the offices of the association in question, for the purchase of warehouses, of fertilizers, of sulphate of copper, of sulphur, of seeds, of potatoes, of agricultural machinery or implements, for the payment of wages, for the purchase of meals and cattle food of various kinds, etc.

Application of Loans. — The loans granted by the banks have been widely applied to all branches of agriculture, in accordance with varying economic circumstances.

TABLE II. — *Loans made with State Capital. by the Agricultural Credit Banks to Agricultural Syndicates*

Years	Number	Amount
1915 . .	32	64,593.18
1915-1916 .	41	93,529.25
1916-1917 .	68	241,287.09
1917-1918	62	187,162.44
1918-1920	35	251,148.97
1919-1920	42	310,986.40
Total . .	280	1,151,717.33

Table III (pages 278 and 279) shows the various applications of the loans. As may be seen from this table, the largest number of loans have been effected for the purchase of fertilizers and for buying live stock.

Taking the figures of each financial year into account the loans for the purchase of fertilizers increased up to 1917-18, and then diminished in the course of the two following years. Thus in the financial year 1917-18 there were 332 loans granted: in 1919-20 they only came to 110, that is to say than less one third of what they had been in the preceding year. Up to 1915-16, the purchase of live stock as a way of using borrowed capital holds the third place in the scale of numbers, the number of loans made for vine growing exceeding it, but in 1916-17 it takes the second place. In the course of the financial years 1917-18 and 1918-19 a fall in this number is noticeable, but during the financial year 1919-20, it only fell short by one of the highest number previously reached, that of 1916-17.

Vine growing takes the third place. There is an increase in the loans up to 1916-17, then a fall during the financial year 1917-18, to rise a little in 1918-19, then perceptibly dropping in 1919-20. Harvest expenses, which up to 1918-19 occupied the fifth place, rose to the fourth during the last financial year, on account of a sudden rise in wages at the beginning of harvest operations. This brought about a larger number of applications for capital on the part of growers of cereal crops and agriculturists. Loans for harvesting fell off in the course of 1916-17 and 1917-18, rising again in 1918-19 and remaining nearly the same in 1919-20.

The payment of wages to farm hands figures in the fifth place, but the number of loans of this kind is nearly equal to that of loans made for harvesting. It should, however, be noted that this number, having increased up to the financial year 1916-17, then diminished down to the

TABLE III - *Purposes for which Short T*

Years	Cultivation and crops											
	Spraying material	Vines	Millet	Potatoes	Olive trees	Rice	Sowing	Weeding	Harvesting	Threshing	Seeds	Fertilizers
Up to 1915 .	157	317	35	73	67	—	86	113	316	181	170	553
From 1915 to 1916	110	216	19	13	36	3	94	112	141	77	43	232
» 1916 to 1917	159	231	31	36	45	2	139	81	117	101	67	301
» 1917 to 1918	175	157	21	42	58	2	96	53	115	91	57	332
» 1918 to 1919	113	152	17	22	30	—	82	61	186	171	34	207
» 1919 to 1920	108	121	12	5	22	3	79	21	187	199	49	110
Totals	822	1,204	111	191	258	10	576	416	1,062	820	420	1,735

last financial year. The loans granted in this year represent a minimum, being less than half the number reached in 1916-17.

The purchases of spraying materials after increasing up to 1917-18 show a considerable decrease in the last two financial years.

The loans granted for seeds and cereals beginning from 1917-18 have fallen off, so that they represent little more than half the highest number reached in 1916-17. Finally the loans granted for the purpose of breaking up fallow lands fell off in 1918-19 and rose again slightly in 1919-20.

Limit of Loans. -- As to the variations of the loans as regards their amount, we note that during the last financial year the larger number of the loans are for sums varying from 100\$ up to 250\$: then come those of from 500.01\$ to 750\$. But if we take as the maximum limit the sum of 1000\$ we find that the loans not reaching that figure are 87.7 per cent. of the total. This shows that it is not the large proprietors that chiefly have recourse to the banks but the owners of small and medium-sized farms and all the class of farmers not included among the property owners.

Period of the Loans and Extensions. -- As we have indicated, the period for repayment of loans was extended temporarily in the financial year 1918-19 in virtue of the law No. 4,902 of 11 October 1919. The period was extended to two years, and the privilege came to an end in 1920. In all the years the usual period was one year with an extension for a further year. The difficulties and accidents of agricultural life very often prevent repayments being made within the time fixed at first, such time having been calculated to allow of the coming in of receipts that should accrue from the agricultural operations in respect of which the application was

ans were made up to 30 June 2019.

Purchases																				Sales																																																																																																										
requisites		Machines		Live stock		Fodder		Spirits of wine		Cans, etc		Breaking up of fallow		Plantations		Wages, etc.		Clearing land		Pig pastures		Oil mills and wine presses		Farm buildings		Rent		Land tax		Dues		Collective sales		Redemption of mort- gages		Boring for water		Miscellaneous		Payment of compensa- tion for live stock																																																																																						
36	13	309	55	—	—	56	101	328	95	33	24	37	40	10	1	2	—	—	48	—	19	6	209	12	—	1	87	15	167	13	19	1	17	12	41	2	—	—	133	—	30	10	310	10	—	8	64	48	189	21	18	11	57	15	23	2	1	9	—	107	—	31	6	267	15	—	—	70	42	179	9	11	5	58	16	11	1	—	2	2	14	—	5	7	217	3	—	—	53	12	111	20	7	8	33	16	—	1	—	1	1	1	22	—	15	8	309	5	6	1	62	51	83	17	6	3	36	16	—	2	—	—	2	—	16	1
36	50	1,521	100	6	10	392	269	1,057	175	94	52	238	115	85	9	3	18	3	340	1																																																																																																										

made for capital. And as the law allows these extensions, there are a great many of them.

The percentage of extensions on the total number of loans in each financial year was as follows :

1915-16.	58.7	per cent.
1916-17.	53.3	» »
1917-18.	73.9	» »
1918-19.	97.5	» »
1919-20.	67.6	» »

As we see, number of extensions noticeably increased in 1917-18 and continued to do so in 1918-19.

§ 4. AGRICULTURAL SYNDICATES.

As we have already remarked at the beginning of this article, in speaking of co-operation in Portugal and of the organizations promoting the development of agriculture a description must be given of the agricultural syndicates as being institutions which though not true co-operative societies have all their characteristic features, seeing that they promote every kind of mutual assistance among the agriculturists, with the aim of bringing about a more extended, a more scientific, and a more profitable cultivation of the soil.

The syndicates owe their institution to the laws of 5 and 7 July, 1894, and to that of 4 December of the same year, laying down their rules. Difficulties of various kinds, however, prevented their actually coming

into being, and it proved necessary to take steps to reform the constituting laws. This was effected by the law of 3 April 1896, which is to be looked upon as the law really constituting the syndicates, for up to that time they had not taken actual shape.

By the terms of this law, the Portuguese agricultural syndicates are, like all organizations of the kind, associations numbering both agriculturists and persons carrying on industries cognate to agriculture, and formed with the object of contributing to agricultural development or that of cognate industries whether by collective purchase of machines, implements, seeds, etc., or by offering credit facilities.

Apart from these fundamental and essential objects, there are other special aims which the syndicates may follow out, such as growing of new kinds of crops at experimental stations, trials of new agricultural machinery, opening up of new markets, etc.

The constituting law goes on to declare that the syndicates have power to set up within themselves co-operative agricultural banks, or to give facilities for their institution. Thus the syndicates have beyond question a most important place in the national economy, not only on account of the general functions that the law confers on them in relation to the development of agriculture, but also on account of the assistance they render along the same lines in conjunction with the co-operative banks.

Here it will be well to recall that this united action between the agricultural syndicates and the co-operative agricultural credit banks had the express sanction of a provision of the law. The fifth paragraph of article 12 of the law of 2 March 1911, and paragraph 5 of article 14 of the law No. 215 of 1914, lay it down in fact that no co-operative agricultural bank may be organized, unless there is a corresponding syndicate working alongside of it. This is a provision of especial importance from which it results that the syndicates are the organization underlying the credit operations carried out by the co-operative banks.

To this examination of the essential functions of the syndicates, we will add that by an explicit legal provision, they are forbidden to undertake industrial and commercial business on their own account, or to employ their capital in banking or other operations. These measures make quite clear the nature and character of these institutions, which are exactly those of agricultural mutual aid associations. The syndicates in fact have power to encourage and promote the establishment of mutual benefit societies, of co-operative associations, of mutual insurance societies, and of co-operative agricultural banks.

As regards their constitution and working, we may note that the agricultural syndicates have a capital built up from entrance fees, subscriptions, commissions paid by the members for operations carried out with the help of the syndicate, State subsidies, grants from administrative councils, gifts and bequests. To meet expenses incurred on behalf of their members when arranging sales, purchase, transport or any other business for them, they can charge a commission of two per cent. They are exempt from commercial taxation, from stamp and registration duties,

and have the right to use unstamped paper for all their documents and certificates, including the deeds by which their rules are drawn up or modified. They have as well rebates on railway transport and large discounts on their purchases of serums and vaccines.

The area of each agricultural syndicate is determined by the needs and the usages of the locality in which the office is situated, by the character of the existing communications, by the type of cultivation best suited to the district, etc. In the case of stockbreeding syndicates a centre must be included in the area suitable for improving the breeds and developing the stockbreeding industry.

In spite of the marked advantages offered by the law to these institutions, the first attempts at establishing credit institutions were failures, and the greater number preferred to engage in the purchase of fertilizers, and the chemical analysis of soils for their members. It was not till later on that the syndicates set up the first savings and credit banks, which we mentioned at the beginning of this article.

In 1908 there were already 33 syndicates of which a fair number were linked up with the *Caves Regionaes*. Some years after the Federation of Portuguese Agricultural Syndicates was formed, and the Central Association of Portuguese Agriculture became the central syndicate. We may recall the fact that the Portuguese Central Association formed in 1860 is the oldest association in Portugal. From its first institution it has rendered inestimable services to agriculture by improving the system of cultivation ; by opening at its own expense laboratories for the chemical analysis of produce, of fertilizers, etc., and by working at the solution of the important economic and technical problems that concern production. When the Association transformed itself into the central syndicate, its rules were altered by decree of 23 June 1910 and it united in one federation all the associations and all the syndicates that agreed to combine.

The Central Syndicate devotes itself to the assistance of its affiliated associations and agricultural banks, the carrying out of propaganda work, the encouragement of agricultural instruction, the organization of competitions, the facilitating of members' purchases of fertilizers, seeds and plants ; to arranging sales of produce and to encouraging the development of syndicates, agricultural insurance societies, agricultural credit banks, etc.

The work of the association is divided into different sections, each of which undertakes a special department, as for example, agricultural instruction, agriculture in general, viticulture, wine-making, stockbreeding agriculture in the islands and in the colonies, etc.

5. MEASURES ADOPTED BY THE GOVERNMENT.

Now that we have briefly examined the constitution and character of agricultural syndicates, we will draw attention to the principal measures affecting them passed by the Government during the war and in the course of the first few years after the war.

What especially deserves notice is the fact that agriculturists were empowered by the decree No. 2,633 of 20 September 1916 to form local associations designated *Sindicatos de Pecuária*. These syndicates are associations consisting of agriculturists and persons following cognate occupations, formed with the object of promoting stockbreeding, and in particular of improving one of the breeds of the district.

With this in view it is their business to establish the type of the breed selected, to buy breeding cattle and to keep them when bought; to direct all the work of preparation for competitions, and for exhibitions intended to act as propaganda; to facilitate members' purchases of animals, forage, implements and machines; to find markets for the products of stockbreeding; to arrange for transport of stock whether by land or sea; and to encourage in every way the formation of live stock insurance societies.

Where the formation of a syndicate on the lines of this decree is likely to be of advantage to the local stockbreeding industry, a subsidy for installation is granted, to be 500\$ for the first year, then 100\$ less for each succeeding year. If at the end of the fifth year the syndicate proves that its working has been of value, and that it cannot do without the State subsidy, the law allows a fresh annual subsidy to be granted which will be continued as long as is judged advisable.

Every year a competition is to be held between the stockbreeding syndicates of every district on the mainland, and there is to be a distribution of prizes to those whose services have been of the most value. These prizes vary from 100\$ to 50\$ and 20\$ for each district.

By another decree, No. 2,580, dated 18 June 1916, these syndicates are also to be formed in the province of Cape Verde, in accordance with the constituting law.

The decree No. 5,219 of 8 January 1919 consolidating the regulations made by previous decrees as to the establishment of co-operative agricultural credit banks, also regulates on broad lines everything relating to agricultural and stockbreeding syndicates.

Finally by the decree No. 7,032, of 16 October 1920, the Central Association of Portuguese Agriculture was converted into the Central Union of Portuguese Agriculture, with the object of centralizing the whole movement for agricultural co-operation in Portugal.

To the initiative of this Association, in concert with the Federation of Syndicates, the agricultural syndicates, the co-operative credit banks of the respective regions, the co-operative societies and all the other agricultural associations existing in the Republic, is due the institution of a new credit organization called the National Agricultural Bank of Portugal.

In 1920, there were 189 agricultural syndicates in existence on the mainland, and 36 in the adjacent islands. The former were divided as follows among the districts:

Districts	Number of Syndicates
Aveiro	11
Beja	15
Braga	9
Braganza	7
Castello Branco	6
Coimbra	15
Evora	16
Faro	8
Guarda	8
Leiria	12
Lisbon	17
Oporto	15
Portalegre	5
Santarem	11
Vianna do Castello	8
Villa Real	11
Vizeu	5

It appears from a recent enquiry that only 41.2 per cent. of the 189 syndicates on the mainland are in regular working order; 33.8 per cent. give evidence of a certain activity, and 24.8 per cent. do not fulfil any useful function.

The greater number of the non-functioning syndicates are to be found in the northern region, in the districts of Coimbra and Castello Branco and north of these. In this region there are 105 associations, of which 75 are in working order, that is, 71.4 per cent. of the total: in the centre and south there are 84 of which only 66 are in working order, that is 78.5 per cent.

The total number of agriculturists who were members of agricultural syndicates in June 1920 was 28,784 or 551 more than in the previous year; a very small number, compared with the whole rural population of the mainland of Portugal.

But in spite of the restricted activity of the agricultural syndicates and their inadequate organization, considering the area and the agricultural population of the country, the sums represented whether by the capital owned the syndicates themselves or by the operations carried out, do nevertheless give an idea of the valuable services that these bodies would render to agriculture, if they could be extended over the whole country.

Figures are not available about the activity of most of the 36 agricultural syndicates in the islands.

* * *

The measures in force on co-operation and particularly on agricultural credit, together with the successive changes and modifications introduced by the various laws already quoted to meet the real needs of agriculture,

are proof of the care devoted by the Government to the encouragement and improvement of the agricultural industry of Portugal. Much better results would have followed, if the support had been forthcoming of a truer spirit of co-operation, to which indeed an appeal had been made by those very laws. The measures we have examined have nevertheless had important results. And it is beyond dispute that it was largely due to the facilities given, during the war, to agricultural co-operation that it was possible, in Portugal as elsewhere, to remedy the food shortage and to surmount the difficulties in the way of a profitable cultivation of the land.

F. F.

MISCELLANEOUS INFORMATION RELATING TO CO-OPERATION AND ASSOCIATION.

BULGARIA.

STATE AID TO AGRICULTURAL CO-OPERATION — Law relating to the improvement of agricultural production and the preservation of rural estates, ratified by decree No. 1, of 3 January 1922, and published in the *Derjaven Vestnik*, No. 231, of 13 January 1922.

Among the measures taken for the improvement of agricultural production by the new law of 3 January 1922, there may be conveniently noted here a whole series of provisions in favour of co-operation.

In the first place the Ministry of Agriculture can grant, for the benefit of co-operative societies for seed production, subsidies consisting in a supply of the necessary material and seeds at a reduction in price which may amount to 50 per cent.

If these societies set up and maintain seed selecting stations and place themselves under the Ministry of Agriculture as to agricultural taxation, they have the right to import the necessary material free of duty, to send it by rail at reduced rates, and can earn a grant up to 30 per cent. of the expenses of construction and management of the stations.

Other subsidies are granted to co-operative societies for land improvement or irrigation: these latter benefit by a reduction of the water-rate up to 50 per cent.

The co-operative societies of tobacco growers, besides profiting by the technical advice of Ministry officials, can obtain grants for the construction of storehouses and drying-sheds, up to 20 and 30 per cent. respectively of the cost of building: in addition the Agricultural Bank of Bulgaria insures up to 70 per cent. all tobacco warehoused in co-operative depots.

The provisions in favour of co-operative stockbreeding societies are quite as important. The law gives these encouragement by assistance in the following ways:

1. Purchase of breeding stock in Bulgaria or abroad, to be resold at cost price ;
2. Grants for the maintenance and regular use of service stations ;
3. Prizes for pedigree breeding stock ;
4. Grants up to 30 per cent. of outlay to societies for the breeding of cattle suitable for rough grazing ; this grant rises to 50 per cent. in the case of young horses, buffaloes, or cattle, intended for breeding purposes ;
5. Grants for the establishment and upkeep of depots for rearing breeding stock (horses, buffaloes and cattle of special local breeds) ;
6. Permission to import breeding cattle duty-free and to send by rail at reduced rates ;
7. Grants for the organization of shows, competitions, and public sales of breeding-stock.

Similar measures are provided for the benefit of poultry societies.

As regards vine growing and orchard cultivation, grants will be allocated to co-operative societies for the establishment of nurseries at least two hectares in extent for American vines, or for nurseries of not less than 2000 fruit-trees : other grants are intended to encourage the erection of buildings for the preparation of dried or bottled fruit ; these grants may amount to 50 per cent. of the value of such buildings. In the same way, the Agricultural Bank of Bulgaria opens credits to co-operative sericulture societies for the construction of cocoon drying rooms, up to 80 per cent. of the value of such rooms.

In regard to apiculture, the Ministry will subsidize co-operative workshops for the preparation of artificial comb, sectional hives and other bee-keeping appliances, up to 50 per cent. of the value of the lathes and other tools, etc.

Co-operative production and sale in respect to dairying ; refrigeration of animal or vegetable products ; preparation of vegetable oils for the table and for industrial purposes ; preparation of cotton, flax and hemp fibre ; manufacture of attar of roses, of preserved fruits and vegetables, of chemical manures ; basket-work ; supply of the electric power required in agriculture, etc. : are encouraged by grants that may amount to 50 per cent. of the cost of organization.

Finally, co-operative societies organizing agricultural courses, itinerant or otherwise, can obtain recoupment of expenses incurred for this purpose, up to 50 per cent.

These measures should undoubtedly result in a marked and rapid further development of agricultural co-operation. M. B.

CZECHOSLOVAKIA.

THE ESTABLISHMENT OF A CO-OPERATIVE SOCIETY FOR THE PURCHASE AND SALE OF LAND. — *Deutsche landwirtschaftliches Genossenschaftsblatt*, No. 3.

* Prague, 5 February 1922.

On 25 June 1921 the German Co-operative Society for the Purchase and Sale of Land was founded in Prague on the initiative of the

Central Federation of German Agricultural Co-operative Societies of Bohemia, the Central Federation of German Co-operative Societies of Moravia and Silesia, the German Bank of Agriculture and Industry at Prague, the German Popular Bank in Bohemia and other bodies.

The aims of this co-operative society are as follows: (1) to assist members in the acquisition, equipment and management of their land: this last more especially by means of joint purchases of agricultural requisites without division of any profits accruing from such transactions among the members; (2) to act as intermediary in the letting and in the administration of estates; (3) to carry out rectification of boundaries and improvements; (4) to grant loans to members with a view to their participation in co-operative schemes and to render assistance to them in the repayment of mortgage debts; (5) to co-operate in measures introduced by public authorities for the re-distribution of holdings or for land reform in general.

Membership is open to individuals or corporations resident in the area of the Republic of Czecho-Slovakia. The value of the shares is fixed at 500 crowns, and the liability is limited to the value of the shares subscribed. The full assembly of members has the right of raising the value of the shares to 1000 crowns. The number of shares which can be taken up by members is unlimited. The federations above mentioned propose to take up a large number of shares, so that the society begins operations with an adequate working capital. M. T.

GERMANY.

AGRICULTURAL CO-OPERATION IN 1919-20 — *Jahrbuch des Reichsverbandes der deutschen landwirtschaftlichen Genossenschaften für 1920. 27th year. Berlin, 1921.*

The General Position of Agricultural Co-operation. — In the financial year 1919-20 there was an unprecedented development in the number of new agricultural co-operative societies, a total of 3,421 being reached; 427 societies were dissolved and 2,318 were removed from German soil by the cession, in accordance with the Treaty of Versailles, of the regions in which their activities had been carried on (65 societies in East Prussia, 412 in West Prussia, 939 in Posenania, 139 in Schleswig-Holstein and 763 in Alsace-Lorraine). The net increase was thus 676 societies, about half of that reported for the previous year when a total increase of 1,293 had been shown. On 1 July 1920 the total number of agricultural co-operative societies reached 31,521, that is to say 81 per cent. of the total of registered co-operative societies (38,900). More than four-fifths of the German co-operative societies are thus agricultural co-operative societies. The membership numbers may be estimated on the basis of the averages supplied by the statistics of the National Federation as at least 3,000,000. Agricultural co-operation thus represents a form of agricultural organization far superior to any other in importance. As compared with

the total population (taking as the basis the census of 1 December 1910) there is one agricultural co-operative society for every 1,868 inhabitants, and as compared with the total productive area one co-operative society for every 867 hectares of land.

Of the existing 31,521 agricultural co-operative societies registered, 30,704, that is to say, 97.4 per cent., were affiliated to federations. Of these 20,883, that is 66.3 per cent., belonged to the National Federation of German Co-operative Societies (*Reichsverband der deutschen landwirtschaftlichen Genossenschaften*), and 6,987 to the General Federation of Raiffeisen Co-operative Societies (*Generalverband der deutschen Raiffeisengenossenschaften*). The other 2,884 co-operative registered societies are divided among eleven federations.

Central Co-operative Societies. — The number of central co-operative societies (central banks and central co-operative societies for purchase and sale) was 86.

(a) *Central Banks.* — The membership of the 24 central banks supplying information amounted at the end of 1919 to 14,842, thus distributed :

Co-operative societies	13,617
Other corporate bodies	240
Individual members	985

The total business done by these banks amounted to 79 thousand millions of marks, as against 44 in the preceding year. In judging of these figures the depreciation of the mark must be borne in mind. The deposits of the co-operative societies with the central banks amounted to 2,925,449,856 marks (against 202,988,267 marks in 1913) : their debts to the central banks to 476,802,619 marks (against 213,495,428 marks). The difference between the deposits and the debt of the co-operative societies was thus 2,449 million marks at the end of 1919 as compared with 10.5 million marks at the end of 1913. In their relations with the ordinary banks the credits of the central co-operative banks have gone up from 12,841,184 marks in 1913 to 597,051,164 marks in 1919 ; within the same time the credits of the ordinary banks with the central co-operative banks have gone down from 33,916,527 marks to 8,229,743 marks. These figures show very clearly the extraordinary changes which have taken place in the affairs of the central co-operative banks since the last year before the war. Of the 24 central co-operative banks, 21 closed the financial year with a profit, three with a loss to be ascribed to the reduction in the value of the war loans. The total profit amounted to 2,634,172 marks.

(b) *Central Co-operative Societies for Purchase and Sale.* — The membership of the 23 leading societies supplying information reached 15,076, including 10,591 co-operative societies, 262 other non-co-operative bodies, and 4,223 individual members. The purchases of agricultural requisites (fertilizers, feeding stuffs, seeds, machines, etc.) amounted to 40,487,959 quintals as against 64,512,141 quintals in 1913. The total value of the

purchases was 446.2 million marks as against 191.8 million marks in 1913. The drop in the purchasing of goods which could be observed in the financial year 1918-19 was even more strongly marked in 1919-20. The reasons for this must be looked for in the state of the exchange and the consequent difficulties of commercial relations with other countries, trading restrictions, strikes, transport difficulties and so on. The sales of agricultural produce (cereals, potatoes, etc.) amounted to 17,373,199 quintals as against 8,125,198 in 1913, at a total value of 333.7 million marks as against 73.8 million. A marked impetus was given to co-operative selling by the economic situation during the war and in the years after the war in comparison with the pre-war period. The total profit was 3,333,167 marks.

Rural Credit Banks. — In the financial year under consideration, 1,233 new rural banks were formed: 69 were dissolved, and 1,621 were alienated as a consequence of the treaty. The number of banks thus fell by 457, passing from 18,788 in 1919 to 18,331 in 1920.

Of the total number, 16,750 banks, *i. e.* 90.4 per cent. were on the basis of unlimited liability: 1,740, *i. e.* 9.5 per cent., limited liability, and 21, *i. e.* 0.1 per cent., liability to make unlimited supplementary payments.

As regards local distribution, there were 9,541 in Prussia, 4,563 in Bavaria, 1,402 in Wurtemberg, and the rest in other provinces. 17,427 banks were affiliated to the National Federation, of which 10,853 supplied information as to their business. The membership of the banks supplying information was 1,088,080, with an average of 100 members to each bank.

The working capital of the banks — the liabilities — amounted at the end of 1919 to 5,481,147,754 marks. The actual increase relatively to the previous year amounted to 850 million marks, and was mainly due to the increase of borrowed capital and of savings deposits. The owned capital has risen from 136,721,399 marks in the year 1918-19, to 140,801,608 marks in the year under consideration. This was made up of 49,860,640 marks, equal to 0.9 per cent. of the liabilities (as against 41,296,108 marks in the preceding year) of share capital; and of 90,940,968 marks, equal to 1.7 per cent. of the liabilities (as against 95,425,238 marks in 1918-19) from reserve funds and the surplus of the year's working. Although the share capital has considerably increased, its amount cannot be considered as important in view of the fall of the mark which means that the necessity of increasing this capital in the banks is a problem always becoming more and more pressing.

The fall of 4.5 million marks in the reserve funds and year's surplus is due primarily to the fact that many banks, having effected considerable investments in war loan, were obliged to make considerable reductions in calculating the value of their reserves to allow for the fall in the current value of these bonds. Borrowed capital represented 5,340,346,146 marks in the banks, constituting 97.4 per cent. of the total working capital.

The employment of the working capital, as represented by the assets,

was in all 5,471,536,834 marks and the difference between the assets and the liabilities thus showed a loss of 9,610,920 marks; 271 banks closed their balance sheet without either losses or profits, 8,230 with profits of 9,278,124 marks and 2,352 with losses of 18,889,044 marks. These losses are to be ascribed to the great fall in the value of the securities held resulting from the fall in the war loan quotations.

Co-operative Societies for Purchase and Sale. — 588 new co-operative societies of this kind were formed in the financial year under consideration, 27 were wound up, and 164 remained in territories alienated from Germany. The effective increase was thus of 397 societies, practically double of the increase in the preceding year. The total number of co-operative societies of this class amounted to 3,717, of which there were 1,468 (39.5 per cent.) with unlimited liability, 2,246 (60.4 per cent.) with limited liability and 3 (0.1 per cent.) with liability to make unlimited supplementary payments. 2,623 co-operative societies were affiliated to the National Federation and 2,490 of these supplied information as to their activity. Their membership amounted to 302,494, their total working capital to 165,012,525 marks, of which 11,483,115 marks was share capital. The ratio between the owned and the borrowed capital was that of one to 2.8. As regards the collective purchases a decrease was reported, for the financial year under consideration, of 2.1 million quintals for fertilizers and an increase of 0.2 millions for fodder. Purchases of seed rose from 0.58 million quintals in 1918-19 to 1.81 million quintals in the financial year under consideration. The total value of the purchases amounted to 252.3 million marks, as compared with 182.5 million marks in the preceding year.

In collective sales there was an increase in 1919-20, while in 1918-19 there had been reported, for the first time since the beginning of the war, a decrease in this field of co-operative activity.

The quantity of cereals sold was 9 million quintals, against 7.5 million quintals in the preceding year. On the other hand no change has taken place in the sales of potatoes: as in 1918-19, they reached 4.8 million quintals. The value of agricultural produce sold reached 205.9 million marks as against 163.9 million marks in 1918-19.

Financially the results were as follows: 84 co-operative societies had neither profit nor loss, 2,166 registered profits of 4,776,992 marks and 240 a loss of 410,452 marks. The net profits were equal to 4,366,540 marks.

Co-operative Dairies. — 79 new co-operative dairies were formed, 88 were closed: thus in this year there was a total decrease of nine societies. Besides, in consequence of alienation of territories, the number of co-operative dairies was reduced by 249. Thus a total diminution of 258 societies is registered, while there is a total of 3,304 co-operative dairies in the financial year under consideration as compared with 3,562 in the preceding. The causes of this decrease are to be found in the the economic situation both during and subsequently to the war. Of the 3,304 co-operative dairies, 2,177 (65.9 per cent.) were on the basis of unlimited liability, 1,063 (32.2 per cent.) on that of limited liability, and 64 (1.9

per cent.) on that of liability to make unlimited supplementary payments. 2,223 societies were affiliated to the National Federation, of which 1,848 were able to supply information as to their activity. The membership of these latter amounted to 205,122, that is on an average 111 members to a dairy. As regards other milk suppliers, taking 16 federations, their numbers have risen from 72,004 in 1918-19 to 98,074 in the last financial year. 510 dairies supplied information as to the number of cows: they possessed — a total of 375,919 head, an average of 737 each.

The working capital consisted, in the case of 1,848 co-operative dairies, of a total of 100,545,878 marks (as against 96,375,904 marks in the case of 1,932 dairies in the preceding year). This sum was made up of 7,618,988 marks of share capital, 25,706,201 marks of reserve funds and 67,220,689 marks of borrowed capital. The greater part of the capital belonged to the societies of the former kingdom of Saxony, where large dairies were the rule: on the other hand the smallest sums were those forming the capital of the federations of Southern Germany where there are only small businesses.

The volume of milk supplied was, in respect to 1,574 dairies, 1,055,911,321 litres, an average of 670,846 litres per society, as against 745,494 litres in the previous year, and 1,139,120 litres in 1913. Of this total quantity of milk supplied, 850.7 million litres were converted into butter, 196.9 were sold, 7 million litres were converted into cheese, and 1.3 million litres were used in other ways. The corresponding figures for 1914 were as follows: milk supplied to the dairies, 2,234.7 million litres: made into butter 1,984.5 million litres; sold, 243 million litres; made into cheese, 5.5 million litres; used in other ways 1.7 million litres.

At the present time as before the war the greater part of the milk supplied to the dairies is converted into butter. The proportion of fresh milk sold rose from 14.9 per cent. in the year 1918-19 to 18.6 per cent. in the financial year under consideration, which means that the federations and the co-operative dairies have taken a much larger share of the business of supplying milk to the urban centres.

The total receipts from the sale of milk and milk-products were, in respect to 1,489 co-operative dairies 426,635,777 marks, an average of 43.8 pfennings per litre or kilogramme of milk. 1,672 dairies furnished information as to the financial results. Of these, 292 had neither profits nor losses, 1,189 profits to the total amount of 2,861,042 marks, and 191 losses amounting in all to 946,783 marks.

Other Co-operative Societies. — In respect to co-operative societies of miscellaneous types, 1,521 new societies were registered, 243 were wound up and 284 lost by alienation of territory. The net increase is thus 994 societies, virtually double of that of the preceding year (510). The total number of these societies thus comes out at 6,169, of which 1,035 (16.8 per cent.) are on the basis of unlimited liability, 5,119 (83 per cent.) on that of limited liability, and 15 (0.2 per cent.) have liability to make unlimited supplementary payments. Limited liability has here a much greater importance than in any other type of co-operative society.

The total working capital in respect to 2,068 co-operative societies amounted to 224,808,803 marks, of which 56,374,495 marks, that is 25.1 per cent., is owned capital. The ratio between owned capital and working capital is especially favourable in the case of co-operative mills, where the percentage of owned capital is 52.3 (for 29 societies the working capital amounted to 6,000,000 marks and owned capital to 3,100,000 marks), in the case of sugar factories where the percentage is 51.9 (for two societies working capital amounted to 860,000 marks, and owned capital to 446,000 marks), and in the case of co-operative societies for the sale of honey where the percentage is 44.6 (for four societies total capital amounted to 59.443 marks, and owned capital to 26,513 marks). The lowest percentage is found among co-operative warehousing societies, standing at 11.1 (for 26 societies total capital amounted to 20,214,745 marks and owned capital to 2,240,589 marks), and among the co-operative societies for the removal of rubbish where it stands at 7.4 (for four societies about 300,000 marks of total capital and 22,000 marks of owned capital). Capital, both total and owned, has increased in an especially marked way with the co-operative societies for supply of electric power: 746 societies have nearly 60 million marks of total capital and 18 million marks in round figures of owned capital. Next to these come the vinegrowers' co-operative societies: 119 with 53 million marks of total capital, and a little more than 7 million marks of owned capital.

The financial position of the different co-operative societies may be thus summed up: on the whole losses have occurred in the case of the co-operative societies for distilling, for the removal of rubbish, for automobile services, brick-making and the manufacture of acetylene gas; the societies for potato-drying, sale of cattle, sale of fish, for ploughing and threshing, for supply of water, for colonization of land, and for co-operative building show varying results: a favourable issue is reported in the case of societies for the sale of poultry and eggs, for the cultivation of flax, for the sale of preserved fruits and vegetables, for the sale of honey, the sale of spirit, and in the case of the co-operative sugar factories. The societies of this last group either have realized profits or have kept their losses within narrow limits.

M. T.

GREAT BRITAIN AND IRELAND.

AGRICULTURAL CO-OPERATION IN ENGLAND AND WALES IN 1920-21. — THE REPORT OF THE AGRICULTURAL ORGANIZATION SOCIETY FOR THE YEAR ENDED 31ST MARCH, 1921. London, 1921.

In reviewing the work of the Agricultural Organization Society for the year ended 31 March 1921, the Report opens by stating that propaganda work for the formation of farmers' societies is now practically finished, societies having been established in almost every part of the country. The Society can, therefore, give its whole time to general services on behalf of the movement as a whole and special assistance to any particular society.

Hitherto the Society's main source of income has been a grant from the Development Fund, the amount of which is dependent on the sum raised in voluntary income, *e. g.*, affiliation fees and subscriptions. For the year 1 April 1921 to 31 March 1922, the grant provisionally promised was equal to twice the voluntary income raised in 1920-1921, with a maximum of £22,000. The voluntary income for 1920-21 amounted to £5,793 and, therefore, the Society was entitled to a grant of £11,586. In view of this the Governors could not anticipate a total income in 1921-22 of more than £22,000, and they decided to reduce their expenditure by re-organizing the Society, reducing the headquarters staff and abolishing the Branch Organization. For 1922-23 the Development Fund Grant will only be equal to the voluntary income in 1921-22, and it will then cease altogether. The Governors accordingly suggest a scale of subscription for each society of 2s. 6d. per member for the first 500 members; 1s. 6d. per member thereafter up to 1,000 members; and 1s. 0d. per member over 1,000 members. This should produce an income of between £8,000 and £9,000 a year which would increase with the membership of the societies.

General Statistics. — The table on page 293 contains statistics for the year ended 31 March 1921 of the societies affiliated to the Agricultural Organization Society.

Co-operative Dairying. — The difficulties of the co-operative dairy societies have very greatly increased since the Government control of prices has been removed. The urgent demand for whole milk during the war brought into the market many districts which previously had made butter and cheese only, with the result that when the war time scarcity of milk had passed these districts were left in the market as additional competitors for the existing outlets. Moreover during the war the large non-co-operative milk companies were consolidating their position in such a way that, whereas the dairy societies had to meet the post-war difficulties as so many struggling units, the trade had to a large extent consolidated its control, and could meet difficulties and business opposition with the strength of unified command. The trade's advantages were increased by the fact that they had secured a practical monopoly of the retail outlet in London, and also were able to call on a great amount of capital. Farmers' societies, on the other hand, were competing against each other for the same outlet with the inevitable result of price undercutting and serious loss all round.

As a result of these conditions, the position was considered by the Associated Milk Producers' Council, and an enquiry put to the United Dairies, Ltd., as to whether they were prepared to discuss an arrangement which would give to the producers an effective share of control, and would preserve the co-operative principle. A scheme was proposed which would have combined the business management and distributing arrangements of United Dairies Ltd., with the collecting organization of the co-operative movement. The main features of the proposal were: —

Producers to hold half the capital and to pool their interests for purposes of a block vote.

Statistics of Agricultural Co-operative Societies Affiliated to the Agricultural Organization Society, for the year 1920.

	Number of societies	Number of members	Sales		
			Agricultural requirements £	Farm produce £	Total turnover £
Societies for the purchase of requirements	222	55,913	9,426,413	1,893,115	11,319,528
Dairy societies	61	9,018	578,298	3,826,893	4,405,191
Egg and poultry societies	57	13,280	130,960	643,814	774,774
Auction mart and produce societies	31	5,287	400,897	188,535	589,432
Slaughterhouse societies	10	1,231	216,666	220,720	437,386
Total	381	84,729	10,753,234	6,773,077	17,526,311
Small holdings and allotment societies (1)	1,113	116,022	—	—	171,651 (2)
Miscellaneous societies	46	6,652	—	—	116,447
Credit societies	18	355	—	—	687 (3)
Grand total	1,558	207,758	—	—	17,815,096

(1) Number of tenants, 45,010. Area held from public authorities, 12,790 acres; from other landlords, 5,439 acres; total, 18,229 acres. — (2) This figure represents the sales of such societies belonging to this group as supply requirements or sell produce. — (3) L-cans granted during the year.

Prices to be fixed by a joint committee — half producers and half distributors — with an independent chairman.

Interest on share capital to be limited.

After payment of fixed interest on the capital, 75 per cent. of the balance of profits to be distributed to milk producers through the co-operative movement.

The Agricultural Organization Society was unable to take part in the negotiations, owing to the conditions attached to the grant from the Development Commissioners, and these, therefore, had to be conducted by representatives appointed by the societies themselves. The difficulties were increased by the fact that the Council of the National Farmers' Union could not see their way to endorse the scheme as drafted. Reference back at almost every stage, by the co-operative representatives to local committees, who themselves found it difficult to arrive at any definite decisions made progress impossible and finally the scheme had to be abandoned, the co-operative movement suffering through not being able to make decisions as readily as could the Directors of United Dairies, Ltd.

The Co-operative Sale of Wool. — During the year the co-operative sale of wool on a large scale was undertaken by the Society and a very large number of fleeces were offered on the London Wool Market. Unfortunately this initial experiment coincided with a serious slump in prices.

Co-operative Slaughterhouses. — With regard to co-operative slaughterhouses, the Report states that this branch of co-operative work has not made the progress anticipated (1). It is thought that in view of the objection prevailing in some districts to slaughterhouses which purchase beasts on the dead weight system it might be desirable to establish co-operative auction marts in those districts. Auction marts have been operated with marked success by some societies; the Kent and Sussex Farmers, Ltd., with six marts, is a case in point.

Co-operative Marketing of Fruit and Vegetables. — Various methods of disposing co-operatively of fruit and vegetables have been successfully tried in different districts. In the fruit districts of the West the co-operative auction in the growers' district has found much favour. Other societies bulk their members' produce and send it away to the consuming centres for sale. A third system is now being started, namely, the establishment by the growers of their own salesmen in the markets.

Co-operative Sale of Eggs. — Interest has been taken in the co-operative marketing of eggs for many years, but comparatively little progress has been made, except in a few districts, owing to difficulties with regard to outlets. At a meeting of the National Utility Poultry Society in February 1921, a sub-committee was appointed to investigate the question in consultation with the Agricultural Organization Society. This committee drafted a scheme providing for only one selling organization in which the collecting societies will be partners, and which they will finance and control. The scheme also makes an interesting departure in providing for the direct

(1) See our issue of March-April 1922, page 28.

inclusion of the large commercial poultry farmers who are situated in districts where there are no depots.

The Agricultural Wholesale Society. — The campaign for additional capital, which was opened in the summer of 1920, met with an organized attack from interested quarters, and the total sum of £250,000 aimed at was not reached. Fresh capital, however, was subscribed for new trading operations through the Agricultural Wholesale Society Development Company, Ltd., which was formed for the purpose. Rigid economy being necessary, the activities of the Agricultural Wholesale Society were restricted for the time being to the supply of feeding stuffs, fertilizers, seeds, dairy machinery and to the sale of eggs on a brokerage basis.

Allotments and Small Holdings. — During the year under review there was no falling off in the demand for allotments. A question which always confronts the allotment-holder is that of security of tenure. Direct ownership is not possible in the majority of cases, but co-operative land purchase has met with great success in parts of the country. Generally speaking the plan adopted provides for the purchase of the land by the allotment society, the members becoming holders of plots varying in size according to the number of shares held by each in his society, such shares being of the value of £1 each, of which 5s. is paid on application, 5s. three months later and the balance in two instalments of 5s., each payable six and twelve months after application respectively. The land is let by the society to the members at a rent that will produce sufficient to pay interest on paid-up capital, rates and taxes and other charges.

The practice of federating societies into a group, and of forming branches of the same society was extended during the year under review with good results. There were two outstanding examples of the principle of central organization or federation. The Bedfordshire, Huntingdonshire and District Smallholdings and Allotments Federation, Ltd., which has as members both allotment-holders and small holders, includes twenty separate societies and has twenty-two branches. The Sutton Bridge and District Agricultural Co-operative Society only had individual small holders as members, but it comprised seven branches and others were in course of formation. Intertrading between allotment societies and the larger trading societies was encouraged and several farmers' societies offered trading facilities to small holders' and allotment holders' societies. The movement towards a wider co-operation was also shown in the growing practice of holding District Conferences periodically.

Civilian small holders have not greatly increased in number during the year, chiefly owing to the fact that Local Authorities are precluded from entertaining any applicants for land other than ex-service men. However, organization amongst this class is proceeding steadily, but somewhat slowly. On the other hand progress in the organization of ex-service men has been marked. Owing to lack of funds the Society was unable to organize every district simultaneously, and work was first concentrated on the Eastern Counties. Here the organization aimed at was the formation of

societies and branches of societies in localities where small holders are settled, with three central organizations at Wisbech, Cambridge and Bedford. In carrying out the organization the Society has employed three methods, (a) the acceptance of the facilities now being offered by farmers' societies to small holders to become members; (b) formation of new societies; (c) formation of branches of existing societies. The choice of method is determined by the circumstance of the locality concerned.

The work among the ex-servicemen has resulted in the discovery that there is a considerable difference between the civilian and ex-service small holders in their grasp of co-operative principles. On the whole the latter are keener, quicker to see opportunities and to grasp them. The former are conservative and more averse from new methods, as is natural amongst men who all their lives have had to rely on their own efforts to obtain a living from the land.

W E H. I.

HUNGARY.

THE CHARACTER OF HUNGARIAN CO-OPERATION. — HORVÁT (Johann V.): *Das Genossenschaftswesen in Ungarn* — *Ungarische Jahrbücher*, Vol 1, Part 4. Berlin and Leipzig, December 1921.

Among the characteristic features of Hungarian co-operation are its centralization and its strict regulation by legislative measures. Up to 1875, the year in which the codification of commercial law took place, the co-operative society did not yet correspond to a fixed legal conception. Definite regulation followed with the law of 1898, which laid down the legal bases for the constitution of co-operative societies. Centralization does not mean in Hungary the establishment of central co-operative societies by means of the union of separate societies, but the founding of small co-operative societies by the agency of the central federation. This system corresponds to the spirit of the small Hungarian cultivator, who is lacking in initiative and joins an independent credit institution if that is in a position to give him immediate assistance. The liability of the members is fixed at a low figure. The central co-operative societies rely for their finance essentially on State support.

Apart from State intervention both private individuals and co-operative societies have power to co-operate for the building up of capital. With this view the shares of the central co-operative credit banks are divided into two groups: foundation shares and ordinary shares. The first have as a rule the nominal value of 1000 crowns and are subscribed for by bodies and individual members who do not intend to make use of the credit of the society. The ordinary shares, whose nominal value is 200 crowns, are taken up by the several societies obligatorily in the proportion of one share for every 3000 crowns of capital they hold.

The most important central co-operative society is the Central Co-operative Society of National Credit (*Országos Központi Hitelrészvétkeret*), which came into existence in 1898. Its owned capital amounts to about

150 million crowns. The State subsidy has been recently increased from one million to 25 million crowns. This co-operative society grants to its members — small cultivators — besides personal loans, mortgage long term credit, for a period of 50 years. An important function was delegated to it by the law of 1920 relating to land reform and to the establishment of small family holdings. The administrative duties that fall to the society, as also to the National Federation of Hungarian Credit Banks, consist in the parceling out of the estates, arranging for the assignment of the portions, the creation of small holdings to be purchased by instalments, and generally the carrying out of all the revenue and banking operations contemplated by the measures of reform. The Central Co-operative Society is authorized to issue certificates of deposit and of pledge, to open depositories, in short to exercise the right of control over the co-operative credit banks, whether affiliated to it or not. More than 2,500 co-operative credit banks were formerly affiliated to this Central Society, but the number has been reduced since the revolution to 980.

Next in importance comes the *Hangya*, the central co-operative distributive society of the Federation of Hungarian Farmers. Founded in 1898, on a purely co-operative basis and as the creation of the Count Alexander Károly, it has not up to the present made any application for State aid.

Among these central co-operative federations should be mentioned the Federation of Co-operative Societies of Hungary, an institution whose aim is the promotion and development of co-operation generally, and the *Futura-Warenverkehrs Aktien Gesellschaft der Ungarischen Genossenschaftszentralen*, which organizes trade in agricultural and industrial products, both in Hungary and abroad.

During the war there were in Hungary 9,000 co-operative societies, of which 8,000 were incorporated in the central federations of co-operative societies. Subsequently to the loss of two-thirds of its territory, there were in 1919 in Hungary not more than 2,500: but a year later these were increased by 1,116, so that at the end of 1920 there were in existence altogether 3,616 co-operative societies. While the population has fallen to 28 per cent. of the former figure 42.9 per cent. of the cultivable area has remained Hungarian, with the effect that the agricultural character of the country has become still more accentuated: correspondingly a tendency is evinced to place co-operative organizations more and more at the disposal of agriculture.

M. T.

Credit

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UNITED STATES.

THE WORK OF THE WAR FINANCE CORPORATION IN AID OF AGRICULTURE.

SOURCES (OFFICIAL) :

THE WAR FINANCE CORPORATION ACT (Apr. 5, 1918, 40 Stat., 506).

THE VICTORY LIBERTY LOAN ACT (Mar. 3, 1919, 40 Stat., 1309).

THE AGRICULTURAL CREDITS ACT (Aug. 24, 1921, Public No. 60 — 67th Congress).

CIRCULAR NO. 1 OF THE WAR FINANCE CORPORATION : ADVANCES TO EXPORTERS, DEALERS, AND BANKS, BANKERS AND TRUST COMPANIES UNDER SECTIONS 21 AND 22 OF THE WAR FINANCE CORPORATION ACT TO ASSIST IN EXPORTING DOMESTIC PRODUCTS OR CARRYING DOMESTIC PRODUCTS FOR EXPORT. Issued 1 October 1921.

CIRCULAR NO. 2 OF THE WAR FINANCE CORPORATION : PART I. — INFORMATION FOR BANKS, BANKERS OR TRUST COMPANIES APPLYING FOR ADVANCES UNDER SECTION 21 OF THE WAR FINANCE CORPORATION ACT. PART II. — INFORMATION FOR BANKS, BANKERS OR TRUST COMPANIES DESIRING TO SELL TO THE WAR FINANCE CORPORATION NOTES OR OTHER INSTRUMENTS OF INDEBTEDNESS SECURED BY AGRICULTURAL PRODUCTS, INCLUDING LIVE STOCK, IN ACCORDANCE WITH THE SECOND PARAGRAPH OF SECTION 24 OF THE WAR FINANCE CORPORATION ACT. Issued 1 September 1921.

CIRCULAR NO. 3 OF THE WAR FINANCE CORPORATION : INFORMATION FOR CO-OPERATIVE ASSOCIATIONS OF PRODUCERS APPLYING FOR ADVANCES UNDER SECTION 24 OF THE WAR FINANCE CORPORATION ACT. Issued 1 October 1921.

FOURTH ANNUAL REPORT OF THE WAR FINANCE CORPORATION FOR THE YEAR ENDED NOVEMBER 30, 1921. — Washington, 1922.

Originally created as a war agency under an Act dated 5 April 1918, the War Finance Corporation was empowered by the American Congress in March 1919 to assist in the task of reconstruction. It was authorized, in order to promote commerce with foreign nations through the extension of credits and to aid in the transition from the conditions of war to those of peace, to make advances not exceeding \$1,000,000,000 to American exporters and American banking institutions for the purpose of financing the exportation of domestic products. This authority was exercised until May 1920, when the activities of the Corporation were suspended. In the Autumn of 1920 when the collapse in commodity markets became acute, the question of exports again became a matter of general interest ; and the Congress, in January 1921, directed that the activities of the Corporation be resumed.

§ 1. THE WORK OF THE CORPORATION IN FINANCING EXPORTS.

As raw cotton is America's greatest agricultural export product, attention was directed first to this important factor in the problem, and a committee, consisting of the Secretary of the Treasury, the Secretary of Commerce, and the Managing Director of the War Finance Corporation, was appointed by the President to study the banking facilities available in the South for the financing of cotton. It became increasingly clear, however, that the situation in Europe had changed. Sound business men there were no longer willing or anxious to buy on credit because of the risk involved in exchange fluctuations. To meet this situation special action was necessary. The Corporation, as a first step, offered to make advances to finance the carrying of stocks of American cotton in foreign warehouses, and some advances were made for this purpose. But it was soon found that this did not solve the problem. It was then suggested that it would be desirable to make advances on cotton stored in America which was under contract for sale to foreigners, and the Corporation consented to render such assistance. Applications for advances of this kind, however, were not filed on a sufficiently large scale to become an important factor, and a further step became necessary.

Early in July the Corporation agreed to make an advance of \$5,000,000 to a co-operative association in Mississippi to finance the carrying of 100,000 bales of long-staple cotton until it could be exported conveniently. Under the terms of this advance the association agreed that out of the cotton pledged as security for the loan it would export within a year a sufficient quantity to repay the full amount of the advance — the cotton to be held in American warehouses until the time was opportune for export. The announcement of this loan stimulated considerable interest, and within a short time the Corporation authorized advances to other co-operative associations in Texas, Oklahoma and Arizona, as well as to banking institutions in the South, to assist in financing large quantities of cotton for export in a similar manner. In all these transactions care was taken to insure the use of the funds advanced by the Corporation solely for the purpose of orderly marketing, without encouraging holding for speculative purposes. In all, the Corporation agreed to finance approximately a million bales of cotton, and it was not long before there was a marked improvement in the cotton situation. But it was not merely the agreement to finance a million bales, or even the ability to do so, that changed the situation in the South. A more important factor was the general realization that if the Corporation could develop satisfactory methods of financing for 1,000,000 bales it could do so for such additional amounts as might be necessary. As soon as there was assurance that the industry would be adequately financed buyers both at home and abroad began to resume purchases, with considerable effect on the market for cotton and cotton goods.

It should be pointed out that it is not within the province of the War Finance Corporation to conduct its business with the view of affecting

prices. It is its duty, however, to offer adequate financing on a sound business basis, and if markets and prices are demoralized because of inadequate financing, it would be natural for prices to be affected when the financial difficulty has been met.

The activities of the War Finance Corporation under its export powers were not confined to cotton. The Corporation indicated its readiness to finance other agricultural commodities intended for export in accordance with the methods that had been devised for financing cotton, which may be summarized as follows:

(1) For prompt shipment against deferred payments.
(2) For future shipment within a reasonable time against either prompt or deferred payments, where the products are under a definite contract of sale.

(3) For prompt shipment to warehouses in foreign distributing points, to be held there for account of American exporters and bankers for marketing out of warehouses.

(4) For shipment within a definite period, the products to be held in warehouses in America until they can be marketed abroad in an orderly manner, the applicant to give definite assurance that the agricultural products pledged as security for the advance will be exported, before the maturity of the advance, to an aggregate amount (including insurance and freight if paid by the exporter to domestic insurers and carriers) not less than the amount of the advance.

Large advances were authorized to co-operative associations on wheat, dried fruits, canned fruits and vegetables, and to exporters or banking institutions on tobacco, condensed milk and meat products. A limited number of applications involving the exportation of manufactured products, such as railway equipment, copper and sugar-mill machinery, also were approved.

§ 2. EXTENSION OF THE POWERS OF THE CORPORATION.

With the development of the activities of the Corporation, it was increasingly clear that export financing alone would not be sufficient to meet the needs of agriculture. On account of the changed situation in Europe and of the conditions at home, the Americans were confronted with the necessity of selling their staple products more gradually than in former years. Not only was the market abroad slow, but American merchants and manufacturers were operating on the basis of the lowest possible stocks, and were buying only to meet current demands. This naturally resulted in forcing large quantities of raw materials, which normally are carried by mills, wholesalers, jobbers and retailers, back upon the original producers and the banks which do their financing. A condition of acute distress developed in the agricultural sections of the country, and if disaster was to be averted extraordinary action was needed to meet the situation.

After a careful study of the whole problem, certain amendments to the War Finance Corporation Act were proposed, considered by the Congress,

and embodied in the Agricultural Credits Act of 24 August 1921. The Act broadened the powers of the Corporation and gave it authority to make advances not only to exporters and banking institutions, but also to dealers in, and handlers of, agricultural products, including co-operative associations, for the purpose of financing the carrying of such products until they could be exported or sold for export. The Corporation also was authorized to make advances to persons, firms or corporations outside the United States purchasing agricultural products in the United States on condition that all notes or other instruments evidencing such advances were in terms payable in the United States in currency of United States and were secured by adequate guarantees or indorsements in the United States, or by warehouse receipts, acceptable collateral, or other instruments in writing conveying or securing marketable title to agricultural products in the United States. The Act further empowered the Corporation to make advances to any bank, banker or trust company in the United States, or to co-operative associations of producers, which had made advances for agricultural purposes or had discounted or rediscounted notes, drafts, bills of exchange or other negotiable instruments issued for such purposes.

Shortly after the passage of the Agricultural Credits Act the attention of the Corporation was directed to the seriousness of the live-stock situation. Immature stock was being forced on the market, and in many cases breeding herds were being sacrificed. On account of the condition of many of the small banks in the West and Southwest and the limitations or restrictions imposed upon them by State laws it was clearly apparent that additional financing machinery should be provided to meet the needs of the live-stock industry. The matter was considered and the Corporation suggested to the local bankers and business men the advisability of establishing new financing organizations for the purpose of bringing new capital into the field of live-stock finance. New agricultural and live-stock loan companies have been formed in the cattle country and the Corporation has made advances to them. These companies are in no sense agencies of the Corporation, and stand in exactly the same position as any other financing organization that the Corporation deals with.

With the approval of the Secretary of the Treasury and the Secretary of Agriculture the Corporation, early in November 1921, took special action to deal with the situation in the corn belt where, as the result of two bumper crops and reduced feeding operations, there accumulated a large surplus of corn. It appointed a committee, known as the Corn Belt Advisory Committee, to aid in devising methods for meeting the situation. Following a meeting of the Committee with the directors of the Corporation in Washington on 16 November 1921, it was announced that the Committee would endeavour to obtain the help of banking organizations and institutions generally throughout the corn belt with the view of providing adequate financing for the more orderly marketing of the corn crop and the feeding of live-stock. It was stated at the same time that, if local institutions should find themselves unable for one reason or another to take care of the situation, the Committee would find ways and means to create

additional facilities for financing the farmers. The advances made by the Corporation in the corn belt resulted in a noticeable improvement in the corn situation.

§ 3. THE BUSINESS ORGANIZATION.

The management of the War Finance Corporation is vested in a board of directors consisting of the Secretary to the Treasury, who acts as chairman, and four others appointed by the President of the United States.

The capital stock of the Corporation was fixed at \$500,000,000, all of which was subscribed by the United States of America. This capital could be called up at such time or times as might be deemed advisable upon a vote of three-fifths of the Board of directors, with the approval of the Secretary of the Treasury. Further capital could be obtained by the issue of notes or bonds up to three times the amount of the paid-in capital. These notes or bonds were to mature not less than six months or more than five years from the respective dates of issue; they were to be a first charge on all the assets of the Corporation and the Corporation may not at any time mortgage or pledge any of its assets. The Corporation may issue notes or bonds up to 1 January 1925 but no notes or bonds shall mature later than 1 July 1925. Upon terms as may be determined by the board of directors, with the approval of the Secretary of the Treasury, bonds may be issued payable in any foreign money or with the option of paying in foreign money. The United States is not liable for the payment of any bond or obligation or interest thereon issued or incurred by the Corporation.

After the passage of the Agricultural Credits Act, steps were promptly taken by the Corporation to set up the machinery necessary for its administration. To facilitate the handling of applications from banking and financial institutions for advances for agricultural purposes it was decided to establish agricultural loan agencies in the important agricultural and livestock districts. Committees composed of bankers, business men and others, who serve without compensation, were designated to take charge of these agencies, to receive applications, to pass upon the security offered and to make recommendations to the board of directors at Washington for review and final action. In considering applications they were authorized, whenever in their judgement such action was necessary, to call for additional information, including statements of condition of the makers or indorsers of notes, drafts, bills of exchange or other evidence of indebtedness offered as collateral security for the advance applied for. The Committees were organized as promptly as the members could be selected and appointed, and within a short time they were ready to take up their duties. In all, 33 agencies were created, each of which was authorized to establish headquarters at the place that ordinarily serves as the financial and trade centre of the surrounding territory and to employ a secretary who would devote his entire time to the work.

§ 4. THE DIFFERENT TYPES OF ADVANCE.

The different types of advance which the War Finance Corporation is authorized to make may be classified as follows :

1. Advances for the purpose of assisting exportation.

(a) Advances to exporters (Section 21, sub-section 1 of the War Finance Corporation Act, as amended).

(b) Advances to banks, bankers and trust companies which have made advances to exporters (Section 21, sub-section 2).

2. Advances to assist in carrying agricultural products for export.

(a) Advances to dealers and associations of producers (Section 22, paragraphs a and b).

(b) Advances to banks, bankers and trust companies which have made advances to dealers or associations of producers (Section 22, paragraph c).

3. Advances to institutions which have made advances for agricultural purposes.

(a) Advances to banks, bankers and trust companies which have made such advances (Section 24).

(b) Advances to co-operative associations which have made such advances (Section 24).

In addition the Corporation is authorized in exceptional cases to purchase from banking institutions instruments of indebtedness secured by instruments conveying or securing marketable title to staple agricultural products, including live-stock (Section 24).

It will be noted that the Corporation is not authorized under the law to deal directly with individual producers. It is reaching the farmers through their co-operative associations and their local banking institutions, with which they are accustomed to do business, and which are in close touch with the conditions in their communities. By making advances to these institutions on the basis of their agricultural paper, the Corporation is accomplishing two things ; enabling the banks with slow assets to carry the existing loans of their farmer customers for a longer period, thus removing the necessity for forced liquidation and relieving the financial pressure which otherwise would make it necessary for large numbers of producers to sacrifice their products without regard to the consuming demand, and putting many of the banks, especially those which are in good financial condition, in funds for making new loans and for taking care of the needs of the farmers and stockmen in the surrounding territory to the extent that their individual credit may warrant.

The aggregate amount of advances and of purchased instruments remaining unpaid at any time must not exceed \$1,000,000,000.

§ 5. ADVANCES FOR THE PURPOSE OF ASSISTING EXPORTATION.

An advance to assist in financing an export may be made by the War Finance Corporation when the products are ready for immediate shipment,

or at such time prior thereto as may be necessary, in the Corporation's opinion, effectually to assist in their exportation. Thus: (a) Where the exporter has made a definite contract for the exportation of products at a specified time, the Corporation may make the advance a reasonable time before the date of shipment, in order to enable the exporter immediately to purchase and hold products for future exportation under such contract, (b) Where the products to be exported are being manufactured for export under a contract which requires the exporter to make periodical payments to the manufacturer as the work progresses, advances may be made by the Corporation to the exporter (or to a bank which is making advances to the exporter) as such periodical payments are made; (c) Where the exporter himself is manufacturing the products to be exported, advances may be made as disbursements are made by him for material and labour.

Advances may be made by the Corporation against promissory notes or other instruments imposing on the borrower an unconditional obligation to repay the advance at maturity, with interest, adequately secured in each instance. The security required by the Corporation will depend upon the nature of the transaction and the financial worth of the applicant, and may consist of endorsements or guaranties; notes bonds or other instruments deposited as collateral; warehouse receipts, bills of lading, or other documents representing the products to be exported; or any other form of security.

Where warehouse receipts, bills of lading or other documents are pledged as security, and the nature of the transaction requires that they be forwarded abroad before the Corporation's advance is repaid, they will be placed in the custody of a reputable bank, to be approved by the Corporation, against its receipt, stipulating that the bank and its correspondents will act as trustees for the War Finance Corporation, but at the expense of the applicant, in handling and forwarding the documents.

Where the nature of the transaction to be financed requires that the receipts be retained in the locality in which the applicant's business is transacted for the purpose of facilitating substitutions, withdrawals and exchanges of documents, arrangements may be made by which the collateral will be deposited with a Federal Reserve Bank, branch bank, or selected bank, at the expense of the applicant.

Applicants for advances must first make a preliminary application to the Corporation. The application should be sufficiently detailed to appraise the Corporation of the business in which the applicant is engaged, the character and terms of the transaction to be financed, the amount and maturity of the advance desired, the nature of the obligation and security offered, the approximate time when it is expected that the advance will be called for, and such other information as may be helpful. Where the applicant is an exporter the preliminary application should indicate the efforts that have been made to obtain the funds applied for through banking channels and the results of such efforts, also the application should be accompanied by the latest available financial statement of the applicant

and of all persons, firms or corporations whose obligations, indorsements or guaranties are to be tendered as security. On approval the applicant will be supplied with the Corporation's terms and conditions and with the necessary application forms.

(a) *Advances to Exporters.* — An advance may be made by the Corporation to an exporter, that is, to a person, firm, corporation or association engaged in the business in the United States of exporting domestic products to foreign countries, provided (a) that the exporter has made a contract or other definite arrangement for the exportation and sale of a domestic product; (b) that the advance will be made only to assist in the exportation of such product; (c) that the advance applied for will not exceed the amount remaining unpaid of the contract price, including insurance and the carrying and transportation charges to the extent only that they are payable in the United States by the exporter to domestic insurers and carriers; (d) that the exporter has been unable to obtain funds on reasonable terms through banking channels.

If the products are not under definite contract of sale, the Corporation must be assured that they will be exported and sold before the maturity of the advance, at a price (including insurance and carrying or transportation charges to the foreign point of destination if and to the extent that such charges are payable in the United States by the exporter to domestic insurers and carriers) at least equal to the amount advanced. In order to insure the performance of this undertaking, the Corporation may require that the value of the commodities shall substantially exceed the amount advanced, and that the application contain appropriate representations and undertakings.

The rate of interest on an advance is fixed at not less than 1 per cent. per annum in excess of the rate of discount for 90-day commercial paper prevailing at the time of such advance at the Federal Reserve Bank of the district in which the borrower is located. The rate in a particular case will be fixed by the Corporation.

The duration of the advance will depend on the nature of the export transaction to be financed, and will in no event extend beyond the day upon which the purchase price is payable. The exporter must agree that if the purchase price is anticipated to any extent he will apply the moneys so received towards the reduction of the Corporation's advance. An advance cannot be made for a longer period than three years from the date of the advance.

(b) *Advances to Banks, Bankers and Trust Companies.* — An advance may be made by the Corporation to a bank, banker or trust company in the United States provided:— (a) That the bank, banker or trust company has made or is making an advance to an exporter for the purpose of assisting in the exportation of domestic products to foreign countries. (b) That the amount applied for does not exceed the amount remaining unpaid of such advance to the exporter.

The rate of interest on such an advance will be determined by the board of directors of the Corporation. The duration of the advance will

depend on the nature of the export transaction to be financed and will not extend beyond the day upon which the loan to the institution is payable. Any moneys paid in anticipation of the expiry date of the loan must be refunded to the Corporation.

§ 6. ADVANCES TO ASSIST
IN CARRYING AGRICULTURAL PRODUCTS FOR EXPORT.

An advance to assist in carrying staple agricultural products in the United States until they are exported may be made by the Corporation as soon as they are properly warehoused or otherwise in a proper condition to afford adequate security for the advance. No such advance can be made later than 1 July 1922.

The conditions regarding the form of obligation, and the security are the same as in the case of advances for the purpose of assisting exportation. So also are the methods of making application; the special conditions attaching to an application by an exporter for an advance to assist exportation attach also to an application by a dealer for an advance to assist in carrying agricultural products.

(a) *Advances to Dealers and Associations of Producers.* — An advance may be made by the War Finance Corporation to any person, partnership, corporation or association engaged in the United States in dealing in or marketing staple agricultural products, or to any association engaged in producing such products, in order to assist the borrower in carrying such products in the United States until they can be exported or sold for export in an orderly manner. Such an advance can be made whenever the board of directors of the Corporation is of the opinion that as a result of conditions arising out of the war, there exists either (a) an abnormal surplus accumulation of the agricultural product in question, or (b) the lack of an adequate market for such product, or (c) that the ordinary banking facilities are inadequate to enable producers of and dealers in such products to carry them until they can be properly disposed of.

In making advances under this section to dealers or associations the Corporation will require a representation from the borrower that in his judgement he will be able to export the products before the maturation of the advance.

The rate of interest on an advance will be determined by the board of directors and will not exceed $1\frac{1}{2}$ per cent in excess of the rate of discount of 90-day commercial paper prevailing at the Federal Reserve Bank of the district in which the borrower is located at the time the advance is made.

Advances may be made for such periods as the Corporation may determine, but not exceeding one year from the date of the advance, and the time of payment can not be extended beyond three years from the date upon which the advance was originally made. Advances must be liquidated before or at the time the agricultural product is exported.

(b) *Advances to Banks, Bankers, or Trust Companies.* — An advance may be made by the Corporation to a bank, banker or trust company under section 22 provided: —

(a) That the advance has been or is being made to a dealer or association of producers, or to individual producers, to assist in carrying staple agricultural products in the United States until they can be exported in an orderly manner.

(b) That the advance does not exceed the amount remaining unpaid of such advances to dealers, associations or producers.

The rate of interest will be determined by the board of directors of the Corporation.

Advances may be made for a period not exceeding one year from the date of the advance, and the time of payment can not be extended beyond three years from the original date of the advance. The advance must be liquidated when the bank receives payment of its advance to the dealer, association or producer.

§ 7. ADVANCES TO INSTITUTIONS

WHICH HAVE MADE ADVANCES FOR AGRICULTURAL PURPOSES.

(a) *Advances to Banks, Bankers or Trust Companies.* — Advances may be made to any bank, banker or trust company which has made advances for any purpose connected with the growing, harvesting, preparation for market and marketing of agricultural products, or the breeding, raising, fattening and marketing of live stock; or if they have discounted or rediscounted agricultural paper. The amount of any advance is limited to the aggregate of all outstanding advances made by the borrower for agricultural purposes, including discounts and rediscounts of agricultural paper.

Advances may be made at any time prior to 1 July 1922, and will mature not later than one year from the date of the advance, and as loans made by the bank mature so must repayment be made to the Corporation, unless special consent has been given for an extension of time of payment. However, the time of payment of an advance can not be extended beyond three years from the original date of the advance.

The rate of interest of an advance will be determined from time to time by the board of directors. Under the law, a bank, banker or trust company obtaining advances on the basis of loans made by it for agricultural purposes may not charge upon such loans a rate of interest greater than 2 per cent in excess of the rate charged by the Corporation. This provision, however, does not authorize a bank, banker or trust company to charge a greater rate of interest than is permitted by State law.

The note or other obligation of the borrower, against which advances are made must be adequately secured in each instance and where drafts accepted by the borrower are tendered, they must be accompanied by an instrument of pledge or other collateral agreement, conferring on the Corporation a valid lien on the security to be pledged.

In exceptional cases the Corporation is authorized to purchase from domestic banks, bankers or trust companies, notes, drafts, bills of exchange or other instruments of indebtedness secured by chattel mortgages, warehouse receipts, bills of lading or other instruments in writing, conveying or securing marketable title to staple agricultural products, including live stock. Such purchases may be made at any time prior to 1 July 1922.

Applications for such sales must prove that the applicant is under some statutory or other legal disability to apply for and obtain an advance pursuant to the provisions of paragraph 1 of section 24 of the Act.

The Corporation will not purchase paper having a maturity at the time of purchase of more than one year, and may not extend the time of payment of any such paper beyond three years from the date upon which it was acquired by the Corporation.

(b) *Advances to Co-operative Associations.* — In order to qualify for advances under section 24 a co-operative association must satisfy the following requirements :

(a) It must be a co-operative marketing association of producers of agriculture products, operating under marketing agreements which confer upon the association unlimited power to sell or pledge the agricultural commodity in question.

(b) It must be organized on a true co-operative basis ; that is all distribution of net proceeds must be made to its members in proportion to the amount of products received from them or marketed for their account. If the association is a capital-stock corporation, ownership of stock should be confined substantially to farmer members, and the dividends upon the capital-stock limited to a reasonable return upon the capital invested, all distribution of proceeds in excess of such reasonable return being made to members in proportion to the amount of products received from them or marketed for their account.

(c) It must be incorporated, either as a stock corporation or as a corporation without capital stock.

A mere credit union, whether or not incorporated, formed for the sole purpose of obtaining loans, and not operating as a marketing association, can not qualify as a co-operative association of producers. If such a credit union, which is incorporated under the laws of a State or of the United States, has resources adequate to the undertaking contemplated, it may qualify as a " financing institution ".

A co-operative association may apply for advances provided it has made or will have made corresponding advances for agricultural purposes. The aggregate amount of advances which may be received by such an association from the Corporation may at no time exceed the unpaid advances made by the association.

Expenditures or advances by an association on account of permanent investments in real estate, plant or other fixed assets do not come within the definition of an advance for an agricultural purpose.

Advances may be made at any time prior to 1 July 1922. The maturity of advances will depend upon the requirements of the crop to be finan-

ced and will not extend later than one year from the date of the advance. Any liquidation of the association's advances must be reimbursed at the same time to the Corporation.

The conditions regarding the rate of interest are the same as in the case of advances to banking institutions which have made advances for agricultural purposes.

Advances may be made by the War Finance Corporation against the promissory note or notes of the borrowing association with adequate security in each instance. The form of security may differ according to the requirements of the situation and the financial resources of the borrowing association, but will generally consist on negotiable warehouse receipts or other negotiable documents conferring to the Corporation marketable title to the agricultural products in question. The Corporation may require in addition notes or indorsements of the members of the association, or other additional security. Where the security consists of warehouse receipts, the warehouse in which the products are stored and the form of receipt must be approved by the Corporation, and the Corporation will reserve the right to make, at the expense of the association, periodical inspections of such warehouses.

It is stated that for those co-operative associations which may be unable, under the preceding terms, to qualify for direct advances from the Corporation, arrangements may be made in proper cases by which responsible banks which have made advances to such associations for agricultural purposes may obtain corresponding advances from the Corporation.

The conditions relating to orderly marketing, payment of advances and custody of collateral are substantially the same as in the case of advances to banks, bankers and trust companies.

§ 8. THE ADVANCES MADE.

The following tables give details of the advances made by the War Finance Corporation from 4 January to 30 November 1921, and a summary of the advances made from the date of its establishment to 30 November 1921.

TABLE I. — *Advances Granted for Export and Agricultural Purposes from 4 January to 30 November 1921, Classified according to the Commodities in respect of which they were granted.*

Advances granted to assist exports :

	\$
Grain	11,500,000
Tobacco	3,591,370
Cotton	28,422,373
Canned fruits	400,000
Dried fruits	1,250,000
<i>Carried forward . . .</i>	<u>45,163,743</u>

	\$
Brought forward . . .	45,163,743
Meat products	1,000,000
Condensed milk	1,000,000
Sugar-mill machinery	359,866
Agricultural machinery	500,000
Textile products, sheet steel, copper, railroad equipment.	3,430,466
Total . . .	51,454,075
Advances granted for agricultural purposes :	
Grain	15,000,000
Cotton	22,492,427
Live stock	12,553,111
Sugar beets	5,010,000
Rice	2,250,000
Canned fruits	300,000
General agricultural purposes	24,417,467
Total . . .	82,023,005
Total advances granted for export and agricultural purposes .	133,547,215

TABLE II. — *Advances Granted for Export and Agricultural Purposes from 4 January to 30 November 1921, Classified according to the Institutions or Persons to which they were Granted.*

	\$
To co-operative associations	52,400,000
To banking and financing institutions	72,447,606
To exporters	8,699,609
Total . . .	133,547,215

TABLE III. — *Summary of Advances made by the War Finance Corporation from the date of its establishment to 30 November 1921.*

	Amounts advanced	Repayments	Amounts outstanding 30 November 1921
	\$	\$	\$
Advances under the war powers of the Corporation	306,720,212	241,251,056	65,469,156
Advances under the Act. of 3 March 1919 and 24 August 1921.			
On exports	74,986,961	31,111,057	43,815,923
For general agricultural and live-stock purposes	33,451,510	106,095	33,345,415
Total . . .	108,438,491	31,247,152	77,191,338
Total advances made . . .	415,158,703	272,498,208	142,660,494

The services rendered by the Corporation, however, cannot be measured by the mere financial statement of its operations. Its very existence with the large funds at its command, has tended to inspire confidence, has opened up other avenues of credit and has facilitated the financing of transactions through the usual channels. In many cases advances authorized by the Corporation have not been consummated because the applicants, strengthened by the assurance of aid from the Corporation, have been able to obtain in other ways the credit facilities which they required. In fact, the experience of the Corporation is stated to have been that wherever it has lent or agreed to lend a dollar it has produced confidence to such an extent that others were willing to lend many dollars.

W. E. H. L.

Miscellaneous Questions relating to Agricultural Economy

ECONOMIC AND SOCIAL CONDITIONS OF THE AGRICULTURAL CLASSES

GREAT BRITAIN AND IRELAND.

THE MAINTENANCE OF THE AGRICULTURAL LABOUR SUPPLY IN ENGLAND AND WALES DURING THE WAR (*Continued*)

§ 5. WOMEN LANDWORKERS.

Estimates of the number of women employed in agriculture in England and Wales before the War vary so greatly that little reliance can be placed on their accuracy (1). It is certain, however, that the number showed a progressive decline between 1851 and 1901. According to the census taken at different times the number of female farm employees was 143,021 in 1851; 90,249 in 1861; 57,988 in 1871; 40,346 in 1881; 24,150 in 1891, and 12,002 in 1901.

In 1911 the number of women returned as agricultural labourers was 13,245. In addition to these there were 20,027 women returned as farmers or graziers; 56,856 as farmers' or graziers' relatives assisting in the work of the farm; 2,449 as market gardeners, and 2,176 in other classes of agricultural occupations, making a total of 94,722 women engaged in agriculture.

The census having been taken in April many women more or less regularly engaged in agriculture and the very large number who were casually employed were not enumerated. The Census of Production, taken in June 1907, gave very different results. According to this estimate the number of females engaged in agriculture in England and Wales was 244,000, including 144,000 members of occupiers' families, 68,000 other persons permanently employed, and 32,000 persons temporarily employed.

(1) BOARD OF AGRICULTURE AND FISHERIES: REPORT OF SUB-COMMITTEE APPOINTED TO CONSIDER THE EMPLOYMENT OF WOMEN IN AGRICULTURE. London, 1919. — BOARD OF AGRICULTURE AND FISHERIES: WAGES AND CONDITIONS OF EMPLOYMENT IN AGRICULTURE: VOL. I, GENERAL REPORT. London, 1919.

Here there are discrepancies not easily explained. It would seem that in the Census of Population farmers' wives were not included as assisting the farmer, but that in many cases they were so included in the Census of Production. It is also probable that many women who worked more or less in the fields did not return themselves in the Census of Population as employed on farm work.

Obviously exact conclusions cannot be drawn from figures so unreliable. It may, however, be said that comparatively little regular work on the farms was done by women, though they were largely employed on seasonal work. There were some exceptions to this. In Northumberland and other northern counties the decline in the number of women labourers was not so marked as elsewhere. In Wales, where small pastoral holdings are numerous, the women usually took entire charge of milking and dairy work and of the feeding of young stock, while many of the smaller hill farms were run entirely by women, the men being engaged in mining or quarrying (1).

A. *The Need of Women Workers.*

Early in the War it was seen that it would be necessary to induce women to work upon the land in greater numbers. The problem presented itself under two aspects. It was necessary to encourage the village women to give the whole or part of their time to agricultural work in their own neighbourhoods, and, on the other hand, to enlist the services of townswomen for work on the land. We shall see that the village women proved the larger source of labour, but that the townswomen, though less numerous, played a specially important part since by their example and enthusiasm they encouraged the village women to come forward and by their mobility they were particularly useful in meeting sudden emergencies.

In developing the employment of women on the land many difficulties had to be overcome. A complex administrative organization was necessary, and elaborate arrangements had to be made for the training of the women who offered their services. The townswomen and others who were willing to go to any district to which they might be sent were mostly enrolled in a mobile force known as the Women's Land Army. Help was also given by voluntary associations such as the Women's National Land Service Corps.

B. *The Difficulties to be Overcome.*

There existed in the minds of rural women the idea that work on the land was degrading and this prejudice had to be eradicated before they could be induced to offer their services. It was by the example of educated women who took up farm work out of patriotism or of townswomen

(1) ROBERTS (Mrs. M. Silyn): *The Women of Wales and Agriculture. Journal of the Board of Agriculture*, October 1918.

who did not feel the same prejudice, by persistent propaganda and by the women's growing sense of the national danger that this difficulty was eventually overcome (1). The whole attitude of country women towards employment on the land became changed and those who had always shared in the work of the farm came to take a new pride in their occupation (2).

Even more formidable was the prejudice of the farmers against women labourers (3). This was partly overcome by systematic propaganda, by demonstrations of women's work, and by published accounts of what women had accomplished (4), but it was finally removed when the women proved themselves thoroughly efficient in many branches of agricultural work. It may be noted that the farmers' prejudice was less strong against the village women, even if unskilled, than against the imported women labourers (5).

Another difficulty arose from the fluctuating nature of the demand for women's labour (6). Apart from variations due to the weather and to the seasons, there was great uncertainty as to the extent to which the farmers could rely upon other sources of labour, such as soldiers released for work on the land, or prisoners of war. The demands of the Army, too, varied according to the condition of affairs at the Front and the attitude of the Tribunals towards the agricultural labourers who still remained on the land was consequently uncertain.

In regard to the mobile labourers, the difficulty of finding accommodation was a serious one (7). We shall see what steps were taken to meet it, but the difficulty was never completely overcome.

A difficulty affecting the village women was that many of them were unable to work on the land until provision was made for taking care of their children (8). Others were prevented from offering their services by want of suitable clothing (9).

C. The Administrative Organization.

It was only gradually that an administrative organization arose in connection with women's labour on the land.

In 1915 women's county committees, working either in co-operation

(1) ERNLE (Lord): *The Women's Land Army. Nineteenth Century and After*, January 1920. — TALBOT (Miss Meriel L.): *Woman in Agriculture during War-time. Journal of the Board of Agriculture*, October 1918.

(2) ROBERTS (Mrs. M. Silyn): Article cited in note (1), page 313.

(3) Articles by Lord ERNLE and by Miss Meriel L. TALBOT cited in note (1)

(4) From December 1915 to November 1918 the *Journal of the Board of Agriculture* contained information in every issue regarding the work which women were doing on the land.

(5) ERNLE (Lord): Article cited in note (1).

(6) ERNLE (Lord): Article cited in note (1). — LYTTLETON (The Hon. Mrs. Alfred): *The Women's Land Army. Journal of the Board of Agriculture*, October 1918.

(7) ERNLE (Lord): Article cited in note (1).

(8) *Journal of the Board of Agriculture*, May 1916.

(9) ERNLE (Lord): Article cited in note (1).

with or as sub-committees of the County War Agricultural Committees were formed in many counties to carry on propagandist work with a view to inducing women to enrol themselves for farm work for whole or part time (1). Early in 1916 it was noted that such committees had already been formed in 25 counties.

In Cornwall women's committees were formed in each parish, the members of which were to make a canvass of the women of the parish, to compile a register of women willing to work on the land and to make provision for their training by local instructresses (2). The system of village registers was recommended by the Labour Exchange Department of the Board of Trade for general adoption in August 1915 (3).

In February 1916 the Board of Agriculture urged the formation in every county of a Women's Farm Labour Committee, with local subcommittees, working in concert with the War Agricultural Committees, but carrying on its campaign with its own staff and organization (4).

The system recommended was that when a Women's Farm Labour Committee had been set up, it should appoint District Committees or Local Representatives and Village Registrars with a view to undertaking a systematic canvass of the women of the county and the formation of a register of those women who were willing to offer their services. It was suggested that the War Agricultural Committee should delegate to the Women's Farm Labour Committee all questions relating to women's work on the land, and that two or more members of each committee should be co-opted on the other committee. A similar method might be adopted to co-ordinate the work of the District War Agricultural Committees and of the Women's Farm Labour Sub-Committees.

One of the duties of the Women's Committees was to arrange for holding meetings for the purpose of inviting and encouraging women to work on the land. A panel of approved women speakers was drawn up by the Board of Agriculture.

Early in 1916, too, the Board of Trade increased the number of organizers of women's work attached to the Labour Exchanges.

In January 1917 a Women's Branch of the Board of Agriculture was formed. Two months later it was more fully organized and became a section of the Food Production Department (5). It was made responsible for the selection, training and placing of the women who volunteered

(1) *Journal of the Board of Agriculture*, February 1916.

(2) *Journal of the Board of Agriculture*, December 1915.

(3) Notes on war service for county-women issued by the Labour Exchange Department of the Board of Trade (*Journal of the Board of Agriculture*, August 1915).

(4) Circular Letter, dated 23 February 1916, addressed by the Board of Agriculture to County War Agricultural Committees (*Journal of the Board of Agriculture*, March 1916).

(5) Circular Letter, dated 30 March 1917, addressed by the Food Production Department of the Board of Agriculture to County War Agricultural Executive Committees (*Journal of the Board of Agriculture*, May 1917).

for the Women's Land Army. To ensure efficient organization for the work, the Women's War Agricultural Committee in each county was asked to set up an Executive Committee with the following Sub-Committees :

(1) A County Selection and Allocation Committee with subsidiary Committees in the County Districts.

(2) An Instruction and Depot Committee.

(3) A Finance Committee.

(4) A Wages Committee.

The County Selection and Allocation Committee was expected to co-operate in the closest way with the Employment Exchanges ; to select the National Service and other volunteers, arranging for their medical inspection and the provision of their outfit, and for placing them, through the County Instruction and Depot Committee into Training Centres, or straight on a farm with the Government allowance of 15s a week for three weeks, paid to them while they were being instructed in their work by the farmer who afterwards employed them ; to inspect the posts and arrange accommodation.

The Instruction and Depot Committee was to arrange for the training of the volunteers in various ways, in Agricultural Colleges and in Training Centres. It was also to organize a Depot to which the land workers could be sent if they were out of employment through no fault of their own. The outfit might in some cases be stored at the Depot ; in other cases, a storeroom under the management of voluntary workers might be arranged.

The Finance Committee and its Treasurer (who required to be approved by the Board of Agriculture) were to make arrangements for the disbursements of such Government money as had been assigned to the use of the Women's War Agricultural Committee.

The Wages Committee was to decide upon the fair current rate of wages for different types of work in the county. It was considered important that representatives of the War Agricultural Committee should join this Committee.

The existing organization in the different counties, whereby District Representatives and Village Registrars had been appointed was to be strengthened.

Twelve Travelling Inspectors were appointed for England and Wales and in each county there was a paid Organizing Secretary, for whose work the Travelling Inspector was responsible.

This scheme of organization was completed by the appointment of Welfare Committees to look after the well-being of the workers.

To meet the sudden demands for additional labour which occur at certain seasons, a Seasonal Labour Committee was set up by the Women's Branch of the Board of Agriculture (1). The Women's National Land Service Corps, of which we will speak later, was appointed as agent of the

(1) ERNLE (Lord) : Article cited in note (1), page 313.

Board of Agriculture for the supply of seasonal workers, and in 1918 enrolled 3,000 women from the Universities and elsewhere to work in the flax-pulling camps in Somerset, Northamptonshire and other counties (1).

D. Village Women.

We have seen that the reluctance of the village women to work on the land was gradually overcome. Comparatively few of them, however, were able to give their whole time to the work. To simplify the organization of the part-time workers, use was made of group-leaders and forewomen (2). The group-leaders organized groups of part-time village women, went out with them at the start and, when moving to another centre left behind them a forewoman chosen from among the village workers. The forewomen arranged the time and pay sheets for their groups and paid the women their wages (3). A development of this system occurred later. In April 1918 a special appeal was issued for women with agricultural experience to act as "village forewomen" to lead and arrange the work of gangs of women on the land (4). They were to enrol in the Women's Land Army for six months and to be prepared to work wherever they were required throughout England and Wales.

To enable married women to work in the fields arrangements were sometimes made whereby other persons, not themselves able to do agricultural work, would look after their children in their absence. In some cases crèches were established for the children of married workers. In this the War Agricultural Committee of the Holland Division of Lincolnshire took the lead (5). Thus at Holbeach an unfurnished house was hired and furnished partly by gifts of furniture and partly by a fund of £25 collected from local farmers. Accommodation was provided for thirty children, preference being given to infants if applications were in excess of that number. The charges for taking in and feeding children were 6d. per day for an infant up to three years old and 4d. per day each for a second and third child.

In other cases women who could not themselves undertake farm work relieved the workers of part of their home duties by mending the family's clothes, by cooking the dinner, etc (6).

The village women would have come forward in greater numbers if they could have provided themselves with suitable clothes and foot-

(1) TALBOT (Miss Meriel L.): Article cited in note (1), page 314. — *Journal of the Board of Agriculture*, July 1919.

(2) Circular Letter, dated 30 March 1917, addressed by the Food Production Department of the Board of Agriculture to County War Agricultural Executive Committees (*Journal of the Board of Agriculture*, May 1917).

(3) ERNLE (Lord): Article cited in note (1), page 314.

(4) Notice issued by the Food Production Department of the Board of Agriculture in April 1918 (*Journal of the Board of Agriculture*, May 1918).

(5) *Journal of the Board of Agriculture*, May 1916.

(6) *Journal of the Board of Agriculture*, December 1915.

wear (1). This obstacle was partly overcome by arrangements made in the Spring of 1916 by the Board of Agriculture with the Co-operative Wholesale Society for the supply of suitable clothing to Women's Committees at the lowest wholesale terms (2). At the end of 1916, in view of the increasing shortage of labour, the Co-operative Wholesale Society found it necessary to notify the Board of Agriculture that it would not be possible for them to continue their arrangements for the supply of clothing (3). Arrangements were, however, subsequently made by the Women's Branch of the Board of Agriculture whereby they were able to sell clothing at cost price to women who, for a certain period, had worked on the land for 24 hours a week (4). They also sold boots to land workers at wholesale prices, and allowed a bonus of 5s. a pair to women who fulfilled the same conditions.

In spite of all the difficulties the numbers of women employed upon the land as part-time workers was more than trebled. It was estimated that in September 1918 at least 300,000 such women were at work (5).

In recognition of their patriotic spirit, the Board of Agriculture, in conjunction with the Board of Trade, proposed early in 1916 to grant a certificate, emblazoned with the Royal Arms, to women land workers (6).

It was afterwards decided that an armlet of green baize bearing a red crown might, in the discretion of the County Women's War Agricultural Committees, be issued to any woman or girl over school-leaving age who had actually worked on the land for not less than 30 days or 240 hours (7). The distribution of the armlets was entrusted to the District Representatives of the County Women's War Agricultural Committees, who as a rule, issued them through the Village Registrars. Any woman who had qualified for an armlet was also entitled to receive a certificate, signed by the Presidents of the Board of Trade and the Board of Agriculture, bearing the Royal Arms emblazoned in colours (8).

E. The Women's Land Army.

In January 1917 it was decided to form a mobile Land Army consisting of women who were prepared to give their whole time and to go anywhere or undertake any agricultural work at the direction of the Board of Agriculture (9). The first appeal to women to join the Land Army was issued in March by the National Service Department and 45,000 women responded to the appeal.

(1) ERNLE (Lord): Article cited in note (1), page 314.

(2) *Journal of the Board of Agriculture*, April 1916.

(3) *Journal of the Board of Agriculture*, January 1917.

(4) ERNLE (Lord): Article cited in note (1), page 314.

(5) ERNLE (Lord): Article cited in note (1), page 314.

(6) Circular letter, dated 23 February 1916, addressed by the Board of Agriculture to County War Agricultural Committees (*Journal of the Board of Agriculture*, March 1916).

(7) *Journal of the Board of Agriculture*, January 1917.

(8) For the badges and awards of merit given to Land Army women see page 321.

(9) ERNLE (Lord): Article cited in note (1), page 314.

At first the women were recruited by the National Service Department and handed over for selection, training, equipping and placing to the Women's Branch of the Food Production Department (1). The entire organization of the Women's Land Army was afterwards entrusted to that Department and it was through the Women's Committees in each county, in consultation with the Employment Exchanges, that the work was carried out.

In the autumn of 1917 an arrangement was made whereby, to prevent overlapping, women recruited for work under the Forage Committee of the War Office and under the Timber Supply Department of the Board of Trade were included in the Land Army (2). Recruits were accepted for any of the three sections of the Land Army, but were to agree to be transferred to either of the other sections if the national interest required it. Enrolment was for one year (Class A) or for six months (Class B), except for the Forage Section, which was only for one year. Women who had already enrolled for the period of the War in the Land Army could, if they so desired, be enrolled under the new scheme for one year.

During the first few months after the formation of the Land Army the women met with considerable discouragement, through the prejudice of the farmers and the uncertain demand for their labour (3). The demand, however, increased after the summer of 1917 and the women found the opportunity to prove their utility. The need for Land Army women was most strongly felt after the call-up of men in the months from April to June 1918. During these months a recruiting campaign was vigorously pushed in the provinces as well as in London and met with great success. Over 28,000 volunteers offered themselves as a result of this campaign (4).

In September of the same year, 16,000 Land Army women were at work, and this was the highest figure which was reached at any one time (5).

Besides working continuously on farms, the Land Army women were called upon to meet sudden demands for seasonal labour and on account of their mobility they often proved themselves exceedingly valuable in difficult circumstances.

Recruiting and Selection. — The method of recruiting and selecting women for the Land Army was as follows (6): Forms of application were obtainable at any post office. On signing one of these, a woman received a summons from the nearest Employment Exchange to appear before a joint committee of the Employment Exchange and the District Selection and Allocation Committee of the Women's War Agricultural Committee. Her railway ticket to the place indicated was sent to her.

(1) *Journal of the Board of Agriculture*, October 1917.

(2) *Journal of the Board of Agriculture*, October 1917 and February 1918.

(3) EBNLE (Lord): Article cited in note (1), page 314.

(4) *Journal of the Board of Agriculture*, June and July 1918.

(5) EBNLE (Lord): Article cited in note (1), page 314.

(6) *Journal of the Board of Agriculture*, May 1917.

She was interviewed by the District Selection and Allocation Committee who considered whether she was physically fit for work on the land. If she were accepted for service the Committee then decided (a) that she was sufficiently skilled to go straight to a farm as a paid worker, or (b) that she was suitable to receive a bursary (15s. a week) and to be allocated direct to the approved farm on which she was to work, or (c) that she required four weeks' training at a centre.

The recruit was then given a medical certificate, which she was to have filled in, either by her own doctor at her own expense or by one of the doctors on the Committee's panel. She was also given a measurement form for her equipment to fill in at once. She was then given her return railway ticket and told to await further orders.

If the recruit was passed by the doctor as fit for land work, the Committee carried out the decision arrived at during the interview. The medical examination to which the volunteers were subjected was severe, as it was necessary to maintain a high standard of fitness and health. Of the women who responded to the first appeal, 50 per cent. were rejected (1).

When a recruit was to be sent to a training centre she received her instructions and a railway voucher from the Women's War Agricultural Committee, to whom all particulars were furnished by the District Committee. Her progress was reported upon and, if it were satisfactory, arrangements were made to place her upon a farm as soon as she was ready.

Billeting. — Through the women's organization set up in every county suitable billets were found for Land Army girls sent to any district. The local rate of payment was ascertained and every care was taken to ensure the well-being of the land workers (2).

The compulsory powers of the Board of Agriculture in regard to billeting were very sparingly used, as it was thought that the landworkers would not be likely to be made comfortable in billets compulsorily obtained (3). In one county accommodation was obtained by compulsion for the women employed in threshing. In some cases camps were formed for the women landworkers or they were conveyed by lorries from convenient centres. At times the accommodation provided was extremely rough and the women endured considerable hardship.

All billets, as well as training centres and hostels, were periodically inspected by official organizers and inspectors.

Outfit. — The outfit of Land Army women consisted of two overalls, one hat, one pair of breeches, one pair of boots, one pair of leggings, one jersey, one pair of clogs and one mackintosh (4). A second issue was made within the year of one overall, one hat, one pair of breeches, one pair of

(1) ERNLE (Lord): Article cited in note (1), page 314.

(2) Notice issued by the Food Production Department of the Board of Agriculture (*Journal of the Board of Agriculture*, April 1918).

(3) ERNLE (Lord): Article cited in note (1), page 314.

(4) ERNLE (Lord): Article cited in note (1), page 314.

boots and one pair of leggings. The value of a year's outfit was estimated at £7. It was obtained from the War Office Contracts Department and distributed to the workers in each area through the Outfit Secretary and Store Superintendent (both voluntary) of the County Committees.

Wages. — At the outset a commencing wage of 18s. a week and a minimum of 20s. per week after passing an efficiency test was guaranteed to women of the Land Army. In March 1918 the commencing wage was increased to 20s. a week and the minimum wage after passing an efficiency test to 22s. a week (1).

As from 28 April 1919 the commencing wage for women of the Land Army was raised by 2s. 6d. a week (2). They were to receive 22s. 6d. for the first three months' agricultural work, which included the period of training, and afterwards 25s. a week as the minimum wage. If, however, a higher figure had been fixed by the Agricultural Wages Board as the minimum wage for women doing the same class of work, the Land Army women were to be paid at that rate.

To these wages must be added the value of the benefits offered by the Government to Land Army women, such as free outfit, free instruction, railway and travelling expenses in connection with employment and maintenance at a hostel while out of employment (3).

Badges and Awards of Merit. — Women enrolling themselves in the Land army for a year were given a service armlet after 30 days' or 240 hours' work on the land, a stripe for every six month's work, and a badge after two months' approved service (4).

Two awards of merit were inaugurated in the Land Army on 5 October 1918 (5). The first was the Good Service Ribbon, which was awarded to all workers who had given six months' completely satisfactory service, both in and out of working hours. Of these ribbons 7,976 had been awarded up to October 1919.

The second was the Distinguished Service Bar, which was given for acts of courage and unselfish devotion in the service of others and also for special skill in the course of their employment. Up to October 1919, 46 Bars were awarded, and of these 24 were given for deeds of splendid courage and endurance, while 22 were awarded for really exceptional skill in such unaccustomed work as rearing bulls, driving tractors and shepherding. Ten Distinguished Service Bars were awarded to women

(1) Circular Letter, dated 4 March 1918, addressed by the Food Production Department of the Board of Agriculture to County War Agricultural Executive Committees (*Journal of the Board of Agriculture*, March 1918).

(2) Notice issued by the Food Production Department of the Board of Agriculture, 14 March 1919. (*Journal of the Board of Agriculture*, April 1919).

(3) ERNLE (Lord) : Article cited in note (1), page 314. — Circular Letter, dated 30 March 1917, addressed by the Food Production Department of the Board of Agriculture to County War Agricultural Committees (*Journal of the Board of Agriculture*, May 1917).

(4) *Journal of the Board of Agriculture*, February 1918.

(5) *Journal of the Board of Agriculture*, October 1919.

in the tractor service, so that, though only two per cent. of the Land Army, they took 25 per cent. of these honours (1).

The Demobilization of the Land Army. — Demobilization of the Land Army went on gradually after the armistice (2). In the winter of 1918-19 many women withdrew from it. In October 1919 only 8,000 women remained, and it was decided to disband the Land Army on 30 November, by which time the potato harvest would be gathered in. The disbanded women were, however, encouraged to remain on the land, as their labour was permanently required. It was estimated that of those who were still enrolled at the time the Land Army was disbanded about 75 per cent. wished to continue to do farm work. In Surrey, for example, out of 299 Land Army women, only 44 returned to their pre-War life.

At the time of the disbanding of the Land Army a self-governing association, called the National Association of Landswomen was formed to bind together all women workers on the land. This association was to endeavour to provide, at the expense of the workers themselves, the advantages which the official organization had secured (3).

F. *The Training of Women Workers.*

One of the greatest difficulties in increasing the supply of women landworkers was the provision of the necessary training. Even in normal times the facilities offered to women were wholly inadequate, as was recognized by the Agricultural Education Conference in its Report on Agricultural Education for Women, opportunely published in November 1915 (4).

When it was realized that it would be necessary for women to take their share in agriculture, a few patriotic women, chiefly of the educated class, set themselves to obtain such training or experience as would enable them to be of some use on the land (5). They became students for short terms at such of the Agricultural Colleges and Schools as were able to accommodate them or arranged with individual farmers to get practice on

(1) *Journal of the Board of Agriculture*, December 1919.

(2) *Journal of the Board of Agriculture*, October 1919. — ERNLE (Lord): Article cited in note (1), page 314.

(3) *Journal of the Board of Agriculture*, December 1919. — ERNLE (Lord): Article cited in note (1), page 314.

(4) REPORT OF THE AGRICULTURAL EDUCATION CONFERENCE ON AGRICULTURAL EDUCATION FOR WOMEN. London, 1915. — In June 1910, the Rural Education Conference was constituted by the Board of Agriculture and the Board of Education for a term of three years. This period having expired, the Conference was reconstituted by the Board of Agriculture under the name of the Agricultural Education Conference (See *Journal of the Board of Agriculture*, October 1914). Before the outbreak of the War the Board referred to the Conference the question of agricultural education for women. A summary of its Report on this question was given in the *Journal of the Board of Agriculture* of December 1915.

(5) MACQUEEN (Miss M.): The Training of Women on the Land. *Journal of the Board of Agriculture*, October 1918.

the farms. These women usually paid for their own training or worked without wages until they were competent. Other women obtained by similar methods a training in horticulture.

During 1915 a training centre was established on a farm in Essex by the Women's Farm and Garden Union. Instruction in all forms of farm work was given for a period of 12 weeks. The students usually paid for their maintenance, but the Union paid for the instruction. The women thus trained quickly found employment, many of them obtaining responsible positions.

In a Notice issued by the Labour Exchange Department of the Board of Trade in August 1915 stating that women were required for agricultural work it was suggested that the necessary training in milking and dairying should be given by farmers who intended to employ the trained women on their own farms (1). It was also stated that there were a few agricultural colleges and private farms where a short course of training could be obtained on payment of a fee, the cost being usually about £1 per week for instruction, board and lodging. In many counties there were travelling dairy schools which provided short courses of instruction, usually extending over about ten days, while a few County Education Authorities were arranging special short courses of training with a view to preparing women for light farm work. The Board of Agriculture had arranged for a limited number of courses of training extending over two to four weeks to be given at certain Agricultural Colleges; in these courses maintenance was provided and no cost was involved for the women under training.

In November 1915 the President of the Board of Agriculture addressed a Circular Letter on the training of women for work on the land to the War Agricultural Committees (2). He stated that the experiments which had been made in a few counties since the outbreak of the War had proved that it was possible, by providing selected women with short courses of training, to make an appreciable addition to the number of available farm workers. In a Memorandum which accompanied the letter these experiments were described.

The objects aimed at were (a) in the case of women entirely unacquainted with agriculture, to give them an opportunity of becoming familiar with farm work and thereby gaining some confidence in themselves before seeking employment as wage-earners, and (b) in the case of women already familiar with farm work, to provide them with opportunities of extending their knowledge and increasing their efficiency. To meet these objects three methods had been tried.

In Cornwall the women's committees which were formed in each parish selected a number of capable women competent to act as instructresses. These local instructresses held classes in such subjects as milking, the preparation of cattle foods and feeding calves, pigs and dairy cattle. More

(1) Notes on agricultural work and training for women issued by the Board of Trade (Labour Exchange Department) (*Journal of the Board of Agriculture*, August 1915).

(2) *Journal of the Board of Agriculture*, December 1915.

advanced instruction in dairy work was undertaken, if required, by the regular County Staff Instructresses. Classes by the local instructresses were also held in other branches of farm work, such as hoeing roots, harvesting hay and corn, lifting potatoes, weeding and gardening.

The usual arrangements were for a farmer who had an efficient dairy woman to place her and the required number of cows at the disposal of the parish committee. Similarly, a farmer would allow a competent woman to hold a class in turnip hoeing, or any other branch of light farm work, on his land. The farmer was required to continue to pay the instructress her regular wage and she received, in addition, sixpence a day from county funds. In this way the number of women capable of working on the land was increased at very little cost to public funds.

In Nottinghamshire a different scheme was adopted. The Nottingham County Council Advisory Labour Committee arranged for eight women to be housed at a farm-house in the county. The farmer allowed his farm to be used for the purpose free of rent, and gave a donation and weekly subscription towards general expenses. The women were selected by the Labour Exchanges from a large number of applicants and the course of training lasted three weeks. Two courses were held. Four of the women worked on the central farm and four on two neighbouring farms. The farmers in each case arranged for the instruction to be given, and gave the women their breakfast and dinner in return for the work done. The voluntary services of a matron superintendent were obtained to supervise the working of the scheme and the assistance of the County Agricultural Organizer and the Instructor in Agricultural Processes were also secured.

The pupils were given instruction in milking both in the morning and in the afternoon, and they also assisted with calves, pigs and poultry, hay-making, root singling and hoeing, top dressing with artificials, cleaning and whitewashing cowsheds, gardening and pea picking. The course of instruction was too short to give a thorough training to the pupils, but it enabled them to become accustomed to rural life and conditions and gave the Labour Exchanges an opportunity of judging of their ability to take situations which farmers had applied to them to fill.

The third scheme was that carried out by the Board of Agriculture. The Board arranged with the Labour Exchanges and certain Agricultural Colleges and Farm Schools, situated in different parts of England and Wales for the training of a number of young women who were willing to accept employment as milkers and to undertake light farm work. The Board undertook the payment of the pupils' travelling expenses as well as of their board, lodging and tuition at the institution. The women were selected by the Labour Exchanges, who undertook to place the women out on farms on completion of their training.

The scheme was in operation for 25 weeks and the women selected were in nearly every case without previous experience of agricultural work. The length of the course varied from two to four weeks. In all, 218 women were passed through the course of training and of these 199 were placed in employment. A few unsuitable women were selected and the two-

weeks' course was too short, but, as an experiment, the scheme was successful. The wages received by women trained under the scheme varied from 5s. to 10s. weekly when board and lodging were provided, or from 14s. to 20s. weekly when they lived out, cottages and perquisites being provided in some cases.

As a result of the Circular issued by the President of the Board of Agriculture the instruction of women in light farm work and in milking was quickly organized in a considerable number of counties. The systems adopted were various. In some counties, training was given at approved farms; the shortest period for which training was given was from two to four weeks in Bedfordshire and Herefordshire; the longest period was 12 weeks in West Sussex. In other counties courses of instruction for women were opened at Agricultural Colleges and Farm Schools, this being facilitated by the fact that the number of men students was greatly reduced. In other counties special training centres were established. In others, again, classes were organized in the different villages, as had been done in Cornwall (1).

In the autumn of 1916 the Board of Agriculture offered to Local Education Authorities grants equal to two thirds of any expenditure they incurred in the training of women land workers (2). A number of scholarships of the value of £4 were also awarded providing for a four weeks' course of instruction at certain recognized institutions. Such scholarships were granted to applicants who were approved by the Women's War Agricultural Committee and undertook to give a stated period of service on the land after training. Advantage was taken of the scholarships by several of the voluntary organizations which helped to enlist the services of women workers and by individual women who desired to make themselves more efficient. It was particularly advantageous to women who were already occupied on the land but were compelled to take up unaccustomed tasks owing to the withdrawal of the men.

The short courses of instruction served to give the women some notion of the use of farm implements and the care of young stock, but their training had necessarily to be completed by experience. They were usually quick to learn, as they had not only grit and determination, but a freshness of mind which the farm labourer had largely lost (3).

In 1916, as an outcome of the experiment made by the Women's Farm and Garden Union in the training of educated women, the Women's National Land Service Corps was formed, primarily for the purpose of training educated women to act as forewomen in charge of gangs of women

(1) For a summary of the provision made for instruction in 35 of the administrative counties in England and Wales, see the issue of June 1916 of the *Journal of the Board of Agriculture*. In the issue of July 1916, a full account was given of a training centre established in the Lindsey Division of Lincolnshire, and in the issue of December 1916 notes were published on two training centres formed in Nottinghamshire and a centre formed in Hertfordshire.

(2) MACQUEEN (Miss M. M.): Article cited in note (5), page 322.

(3) TALBOT (Miss Meriel L.): Article cited in note (1), page 314.

workers on the land. The Government gave a grant to the Corps proportionate to the sums raised from voluntary subscriptions (1).

Arrangements for the training of the women joining the Corps were made by the Women's Farm and Garden Union, to whom various farms were lent for the purpose by different members (2). Facilities were also offered by certain Agricultural Colleges and Farm Institutes. The training was always for six weeks and was directed to making competent cow-women or horse-women of the members of the Corps. Most of the women who were enrolled paid for their own maintenance while training, but a certain number of free trainings were given, the expense being met by subscriptions to the Corps.

The methods whereby the Land Army recruits were trained were as follows (3):

1. Training under the bursary systems.
2. Training at a practice farm.
3. Training at an organized centre.

Under the bursary system the recruit was sent direct to the farmer who was to employ her. In consideration of training her for the work for which he required her, the farmer was allowed to have the recruit for three weeks without paying her any wages. During this period the Land Army made an allowance for her maintenance.

This system had the disadvantage that in many cases the farmer only trained the recruit for one particular process and when the season for that process was over she required further training before she was of much use to another employer.

Under the practice farm system the farmer undertook to train one, two or more women for four to six weeks. In return for the training he had the benefit of the women's labour, the Land Army giving them maintenance. The farmer did not employ the women he had trained, who were transferred to paid employment on other farms, but other recruits were sent to him to train.

The practice farm system was not uniformly successful. Its success depended upon the farmers' skill in imparting instruction and upon his ability to gauge the amount of work which a recruit was capable of doing. Moreover in certain classes of work it was very necessary that close supervision should be given until the recruit reached a fair degree of efficiency and the farmer had not always time to give this supervision.

The third method was, on the whole, the most satisfactory. The recruits were sent to a central hostel, usually established on a farm where there were adequate facilities for training a large number of recruits,

(1) Circular Letter, dated 23 February 1916, addressed by the Board of Agriculture to County War Agricultural Committees (*Journal of the Board of Agriculture*, March 1916).

(2) MACQUEEN (Miss M. M.): Article cited in note (5), page 322.

(3) The account which follows is in the main a summary of part of the article by Miss M. M. MACQUEEN on "The Training of Women on the Land," to which we are also indebted for much of the information already given on the training of women landworkers.

or in the centre of a district in which there were several farms suitable for training. The hostel was under the supervision of an instructress, who was able to give her whole attention to the work of training.

At first the period of training was restricted to four weeks, but this was found to be insufficient and the period was extended to six weeks with marked results. It was found that the last two weeks of training greatly increased the efficiency of the recruit. At the same time "efficiency tests" were instituted.

In the majority of cases the training was given in stock or horse work, though there were exceptions to this rule as in some counties the general farm labourer was most in request.

It was found necessary to supplement the training with certain special subjects, such as thatching, hedging, etc. For such training special classes were usually held in connection with the training centre or, where the training was being given to women already in employment, at some central place where the women could meet after their working hours.

Special centres were also arranged for the instruction of women tractor drivers. These were similar to the ordinary training centres, the instruction being given specially in the management of the tractors and of the various implements attached to them, and in the general work of cultivation. When the demand for women drivers increased, recruits were placed for work and training under skilled operators. The period of training was from four to six weeks.

Some of the Land Army recruits received a short training in gardening and were afterwards employed by market gardeners.

During the winter of 1917-18 short courses of instruction in the planting of forest trees were given in the Forest of Dean by the Office of Woods, with the object of securing a number of forewomen capable of dealing with the gangs of women labour working at afforestation.

In making arrangements for the training of the Land Army, some difficulty was caused by the fluctuating demand for women's labour, which made it necessary to have a larger number of women in training at one time than at another. In the Spring of 1918, the number of women in training was between 300 and 400; in the July following the number had risen to 2,775. Between March 1917 and May 1919, some 23,000 women passed through the training centres (1).

G. The Kinds of Farm Work done by Women.

In the first appeals to women to offer their services for work on the land, they were asked to undertake "light farm work," but it is remarkable how, as time went on, women more and more undertook the heaviest forms of labour. There was, moreover, a steady increase in their efficiency.

(1) ERNLE (Lord): Article cited in note (1), page 314.

As early as October 1917 a Test Meeting for women land workers of the midland counties was held at Edgbaston (1). About 250 women farm workers entered for the Tests. The candidates were divided into three classes of workers, according as they had worked for twelve months or more on a farm, for six months, or for three months. The Schedule was drawn up with a view to testing the general capacity of candidates for all-round farm work, as well as for special branches, such as those of the wagoner and the cowman.

Although 75 marks out of a possible 100 were necessary to secure an efficiency certificate and 70 per cent. for a highly commended certificate, in the milking tests not a single candidate failed. The results in regard to forms of labour usually regarded as less suited to women labour were almost equally striking. Besides milking by hand and by machinery, the tests included pulling, cleaning and piling roots; hoeing and singling roots; trussing; thatching; loading and unloading; mowing by hand; grooming, harnessing and driving; ploughing; ridging; drilling; motor-tractor driving. The proportion of women who failed in the tests was very small.

The work of tractor ploughing by women was started in the autumn of 1917, when farmers were strongly of opinion that women were quite unsuited to the task (2). To meet these objections great care was taken in the selection and in the medical examination of recruits, while preference was given, where possible, to educated women. The number of women selected to receive training was 415 and of these 400 were actually employed.

The experiment of employing women threshers was also tried for the first time in the autumn of 1917, when gangs were sent out to Lancashire, Leicestershire and Nottinghamshire, where they did good work (3). In the following year a larger scheme was started and gangs of women threshers were employed in Kent, Essex, Warwickshire, Staffordshire, Yorkshire, Glamorgan and other counties. The women were housed in permanent billets and went out to their work every day. The gangs consisted as a rule of four Land Army women and a forewoman, and wages averaged 23s. per week. The work was of an arduous nature and trying in many ways, and only the strongest women were chosen for it. Some of the women improvised masks of muslin or light canvas as a protection from dust and smoke.

In August 1918 returns were obtained regarding the occupations of 12,657 women of the Land Army and it was found that 5,734 were employed as milkers, 293 as tractor-drivers, 3,971 as field-workers, 635 as carters, 260 as ploughman, 84 as thatchers, and 21 as shepherds, while the remainder were occupied in various other kinds of agricultural work (4).

(1) *Journal of the Board of Agriculture*, September, October and November 1917.

(2) *Journal of the Board of Agriculture*, December 1919.

(3) *Journal of the Board of Agriculture*, October 1918.

(4) ERNLE (Lord): Article cited in note (1), page 314.

Writing in the Autumn of 1918 Miss Meriel L. Talbot stated that in milking and dairy work, the care of young stock, certain kinds of field work and the lighter kinds of forestry women proved themselves completely efficient (1). The work of women in such occupations as threshing, thatching, and driving motor tractors was also remarkably successful, but in the heavier and more monotonous kinds of work the landswoman was not so successful. Manual work of this kind, without variety or change, tended to weary her physically and mentally. She was more adapted for those kinds of work which require knack, deftness of hands and personal interest and care.

Lord Ernle, writing in the light of a year's further experience, gave an estimate of the work for which women are best adapted which did not differ greatly from that of Miss Talbot (2). He said that experience showed that there were particular branches of agriculture for which women had special aptitudes. First among these were the handling of live-stock and above all, dairying and the rearing of young animals. In dealing with horses, their light hands compensated for any want of strength. They excelled in milking and dairy work, for the standard of cleanliness which they introduced was a valuable asset. A woman's secret with animals seemed to be that to her they were not machines but individuals. In the lighter branches of field-work and of forestry women did admirable work. On market gardens their services were invaluable. In thatching, which was fast becoming a rare agricultural art, they proved most proficient. In driving motor-tractors they did at least as well as men; here also light hands tell.

There were other kinds of work in which some women had completely succeeded, though more exceptional qualities were needed. Here and there a woman proved herself to be a competent ploughman, but on heavy land it was doubtful whether ploughing was a suitable occupation for women. In the dearth of male labour threshing was undertaken by women. They did it well, but it was a dirty and heavy job, and the provision of accommodation was always a difficulty. Whether women generally were fitted to become shepherds was still doubtful, yet during the War women did wonders among the sheep.

In some counties, as for example in Monmouthshire (3) and in Devonshire (4), derelict farms were given over by the County War Agricultural Committees to the Women's Committees to be cultivated entirely by women's labour.

(1) TALBOT (Miss Meriel L.): Article cited in note (1), page 314.

(2) ERNLE (Lord): Article cited in note (1), page 314.

(3) ROBERTS (Mrs. M. Sillyn): Article cited in note (1), page 313.

(4) HAMLYN (Miss S. C.): A Woman's Farm in Devon. *Journal of the Board of Agriculture*, October 1918.

§ 6. SOME OTHER SOURCES OF LABOUR.

A. Belgian Refugees.

A few of the Belgian refugees found occupation on the land in England and Wales, but the number was not as large as might have been expected. At the date when the Government Belgian Refugees Committee issued its first Report (1) 100,000 refugees had arrived in England and the vocations of 23,907 of these had been accurately classified; only 654 had been engaged in their own country in an agricultural occupation. At this time, too, though the shortage of labour in agriculture was already evident, there was some hesitation about employing Belgian refugees lest it should be to the detriment of British labour.

B. Danish Labourers.

In March 1916 the Central Labour Exchange Department of the Board of Trade undertook to try to obtain Danish labour for work on farms in England and Wales which were outside the prohibited areas, provided they were assured that engagements for not less than 12 months could be guaranteed, and that third class travelling expenses of the men from Denmark would be advanced by the farmers on the understanding that such advances might be recouped by deductions from wages (2).

The men were to be mainly young single men between the ages of 18 and 25, who had had practical agricultural experience, especially in dairy farming, and who had taken a short course at a farm school. The farmer engaging such labourers was required to board and lodge them under reasonably comfortable conditions and to pay them the current rate of wages for skilled farm workers. Application for Danish labourers was to be made to the Board of Agriculture.

A small number of Danish agricultural workmen was also recruited in 1918 by the Ministry of Labour (3). Every care was taken to obtain men who were definitely qualified to undertake agricultural work.

C. Conscientious Objectors.

To find employment for conscientious objectors a committee was formed at the Home Office, and this Committee was able to arrange for the employment of some of them on the land (4). The Home Office Committee preferred to send out men for work in groups, but also supplied them

(1) *Journal of the Board of Agriculture*, January 1915.

(2) Notice issued by the Board of Agriculture on 22 March 1916 (*Journal of the Board of Agriculture*, April 1916).

(3) Memorandum, dated 3 June 1918, issued by the Food Production Department of the Board of Agriculture to County War Agricultural Executive Committees (*Journal of the Board of Agriculture*, June 1918).

(4) Circular Letter, dated 21 February 1917, addressed by the Food Production Department of the Board of Agriculture to County War Agricultural Committees (*Journal of the Board of Agriculture*, March 1917).

in small parties to individual farms, provided the County War Agricultural Committees would supervise the arrangements for such parties.

Where the men were employed in groups the Home Office bore the expense of housing, feeding (up to 12s. 3d. per week per man) and clothing the men, of medical attendance and insurance, and of paying them their personal remuneration of 8d. a day, less any deductions. The County War Agricultural Committee had to undertake to house and feed the men, settling with the Home Office Committee the expense to be incurred, and charging it, when incurred, to that Committee. On the other hand the Home Office Committee were credited each month with the wages at the current local rates payable for ordinary civilian agricultural labourers.

Where the men were sent out in small parties to farms, the County War Agricultural Committee had first to arrange for the collection of information as to the farms on which this form of labour was required. They also arranged for the reception of the men, for their despatch to the farms and for the inspection of the accommodation, etc., provided. The farmer paid to the representative of the War Agricultural Committee the sum fixed by the Executive Committee, with the approval of the Home Office Committee, as representing the local current rate of wage for men either (a) skilled or (b) unskilled in agriculture, while the Agricultural Committee's representative paid the men the sum fixed by the Home Office as their personal remuneration (8d. a day less any deductions) and accounted for the balance to the Home Office Committee.

The hours worked were those obtaining in similar work in the district.

While they were at work the conscientious objectors were not under military discipline, but were subject to civil control exercised by a responsible person nominated by the War Agricultural Committee to act as agent for the Home Office, or by the employer or body of employers. Any man who misbehaved himself or was persistently idle or was otherwise unsuitable for the work could be removed if the employer required and, if necessary, could also be made the subject of disciplinary action by the Home Office Committee.

D. National Service Volunteers and War Agricultural Volunteers.

In the spring of 1917 the Board of Agriculture made arrangements with the National Service Department whereby farmers would be able to secure for agricultural work men belonging to the National Service Volunteers enrolled by that Department (1).

Farmers desirous of employing them were to apply on the proper form. When filled in, the forms were to be sent to the War Agricultural Executive Committee of the county in order that they might have an opportunity of considering and recommending the relative importance of the applications. This was to ensure that priority should be given to the

(1) Circular Letter, dated 27 March 1917, addressed by the Food Production Department of the Board of Agriculture to Agricultural Executive Committees (*Journal of the Board of Agriculture*, May 1917).

applications from farmers known to be most in need of additional labour. Subsequently the forms were to be forwarded by the Committee to the District Agricultural Commissioner of the National Service Department, and it would be the duty of that official to endeavour to supply each farmer concerned with the labour he required.

It was suggested by the Board of Agriculture that the applications of farmers for National Service Volunteers should be dealt with by the Labour Sub-Committees which they had recently recommended the War Agricultural Executive Committees to appoint.

In a Memorandum on the sources of additional labour for harvest work, dated 5 July 1918, the Food Production Department urged the Agricultural Executive Committees to make every effort to enrol every available man under the War Agricultural Volunteer Scheme (1).

War Agricultural Volunteers were men who entered into an agreement with the Minister of National Service to undertake agricultural work to which they might be assigned by the Minister during the War for a period not exceeding 12 months in all (2).

No man was enrolled as a War Agricultural Volunteer until he had actually been accepted by an employer as suitable for an actual vacancy, and the vacancy had been approved by the Agricultural Executive Committee of the county.

Vacancies for seasonal workers were not so approved.

Men were enrolled as War Agricultural Volunteers either through the agency of an Employment Exchange or through the Agricultural Executive Committees. They were enrolled either for general work (that is, for work anywhere in England or Wales) or for local work (that is for work within daily reach of the volunteer's home).

The rate of wages paid to the volunteer was the rate current for the job on which he was employed. Over and above his wages he received the following allowances:—

1. *Travelling Allowance.*—(a) If the farm were at a distance beyond that which he could reasonably travel daily from his home, a free railway warrant at the commencement and completion of the work which he was directed to take up, or (b) if the farm were within daily travelling distance from his home, the daily cost, if any, of a workman's return ticket by railway.

2. *Subsistence Allowance.*—If the work were beyond daily travelling distance from his home and if he had dependants for whose maintenance he was responsible and from whom he was obliged to be separated owing to his being at such work, subsistence allowance at the following rates:—

(a) If married, or if unmarried and his home was mainly dependent on him, 2s. 6d. per day for seven days per week;

(1) *Journal of the Board of Agriculture*, August 1918.

(2) Statement issued by the Ministry of National Service (*Journal of the Board of Agriculture*, July 1918).

(b) If unmarried and his home was partially dependent on him, 1s. 6d. per day for seven days per week.

If, after being placed in employment by the Minister of National Service, his employment, owing to no fault of his own, came to an end during the war, and no further work were available for him, a War Agricultural Volunteer was entitled to receive an out-of-work allowance at the rate of 3s. 6d. per day (including Sunday) for any remaining portion of a period of six months from the date on which he was placed in employment by the Minister of National Service. The first payment of this allowance was due one week after the commencement of unemployment.

No man who had not attained the age of 45 at the date of his application for enrolment would be enrolled as a War Agricultural Volunteer unless he proved that he was in Medical Categories B3 or C3 or in Grade 3. The Ministry of National Service arranged that so long as a man continued to be engaged as a War Agricultural Volunteer he would not be liable to be called up for military service, provided he applied for such exemption.

Men who entered agricultural employment after 28 May 1918 could be enrolled as War Agricultural Volunteers and assigned to their existing employment, provided they were otherwise eligible for enrolment and the employment was approved by the Agricultural Executive Committee (1). Such men might claim subsistence allowance only and not daily travelling allowance. Subject to similar conditions, men who were employed on non-agricultural work could be enrolled and assigned to the same employer for employment on agricultural work. Any man who had been placed as a National Service Volunteer in agriculture could, on leaving his National Service Volunteer job, be enrolled as a War Agricultural Volunteer, notwithstanding his having been engaged in agriculture on 28 May 1918.

*E. Schoolboys, Schoolmasters, Ministers of Religion,
Civil Servants, etc.*

In the early part of 1915 the Labour Exchanges approached the various authorities which had charge of boys, including the Industrial and Reformatory Schools, with a view to obtaining boys for placing in situations on farms or market gardens (2). The number obtainable from this source was not, however, very large.

The shortage of labour being much more serious in 1916 than in 1915, the Board of Agriculture addressed a Circular Letter to the War Agricultural Committees asking them to ascertain the probable demand for aux-

(1) Information circulated to County War Agricultural Executive Committees by the Food Production Department of the Board of Agriculture on 25 October 1918 (*Journal of the Board of Agriculture*, November 1918).

(2) Statement issued by the Board of Trade (*Journal of the Board of Agriculture*, May 1915).

iliary and holiday labour both for the harvest and for other seasonal work. It was probable that assistance could be obtained from the masters and boys of public and secondary schools, and from such bodies as the Boy Scouts Associations, the National Union of Teachers, the National Schoolmasters' Association, Officers' Training Corps, the Architectural Association, and industrial co-operative societies.

The Board urged that the resources and machinery of the Labour Exchanges should be used in mobilizing the available labour. They also suggested that local registers should be kept of those persons who were willing to assist in harvest work and that the country clergy and ministers of all denominations, or the village schoolmasters, should be asked to act as registrars and to put farmers in touch with those persons who registered their names.

A typical case of the employment of school boys was described in the *Journal of the Board of Agriculture* of October 1916 (1). The British Flax and Hemp Growers' Society, which was formed to administer grants from the Development Fund for the purpose of reviving flax and hemp growing in England was faced during the summer of 1916 with a serious shortage of labour for the flax-pulling in the Yeovil district of Somerset. A sufficient number of women was not to be relied upon and no soldiers were available. The Bristol Grammar School authorities were accordingly approached and, after consideration, undertook to render all the assistance in their power. A company of 60 strong boys, varying from 15 to 18 years of age, volunteered for the work.

In view of the fact that the flax existed in patches varying from 2 to 6 acres, situated in different parishes, which were often separated from one another by a distance of 3 or 4 miles, it was decided to form a camp at a central position where the boys could live in semi-military fashion. The Yeovil Local Committee of the Society, composed of farmers and flax spinners of the district, selected a site for the camp in a sloping field at South Petherton, close to a river, and provided every possible convenience to make it a good camping ground. In so far as the camp organization was concerned the school submitted an estimate of the cost, undertook all responsibility and made the necessary arrangements. A small advance party with baggage travelled by train and the remainder of the party cycled from Bristol to South Petherton. A master accompanied the boys to act as quartermaster, and undertook the organization of supplies; another master went as commandant of the camp, and the school sergeant acted as cook.

The boys rose at the sound of the bugle at 6.45 a. m. and put the camp in order before breakfast, which was served at 8 a. m. By 9 a. m. the whole company, with the exception of a small camp party, left on their bicycles for the flax fields, which were generally situated some three or four miles away. Wherever pulling was in progress one of the Society's Belgian experts was present to supervise the operation.

(1) Article entitled "The Pulling of Flax in Somersetshire", in the issue mentioned.

Pulling was continued until 1 p. m., when there was an interval of hour for lunch, which was brought to the field. At 2 p. m. work was resumed and continued until 5.30 p. m. Camp was generally reached again at 6 p. m.

The catering was arranged at 1s. 6d. per day; the transport of camp equipment together with incidental expenses brought the total up to £125. This cost worked out to about 15s. per boy. The cost per acre of flax pulled was found to be £2 10s. Women were also employed on the flax-pulling, but it was found that the cost of women's labour was about £3 5s. per acre of flax pulled.

More systematic efforts to organize the supply of boys and other seasonal workers were made in the spring of 1917, when a Central Harvest Committee was formed by the National Service Department for the purpose of providing additional labour for the harvest and other work on the land (1). The Committee was representative of the public and secondary schools, civil servants, the Clergy, National Service Committee, the Free Church Council, the National Union of Teachers, Boy Scouts Associations, Church Lads Brigade, and Cadet Corps. The Cavendish Association (representing the public and secondary schools) was appointed to carry out the arrangements under the supervision of the Director of the Agricultural Section of the National Service Department.

In order to facilitate the arrangements delegates representing the public and secondary schools, the Church of England, the Free Churches, and the elementary school teachers were appointed for each county to confer with the National Service Commissioners and Sub-Commissioners and with the County War Agricultural Executive Committees. The four delegates, together with the National Service Commissioner (or Sub-Commissioner) in each county, and the Agricultural Executive Committee of the county, formed an Advisory Committee to consider questions relating to the demand for and supply of this special class of labour.

It was one of the duties of the Advisory Committee to impress upon farmers the necessity of utilizing the labour provided by the National Service Department. The Advisory Committee also received from public and secondary schools in the district particulars of squads of boys available for work in their own localities, either in term time or holidays, and applications for work from ministers of religion, elementary school masters and civil servants residing in the county. In all these cases the names and addresses of squad managers were also to be furnished to the Advisory Committee. When the demand for this kind of labour could not be met locally, the Advisory Committee notified the Central Committee, giving full particulars of accommodation available, locality of farms, etc.

The Central Committee communicated the demands to the various organizations who were collaborating in carrying out the scheme. Offers

(1) Scheme drawn up by the Committee and communicated on 7 May 1917 by the Food Production Department of the Board of Agriculture to County War Agricultural Executive Committees (*Journal of the Board of Agriculture*, June 1917).

of squads required to supply the demands which had not been met locally were sent by the Central Committee to the Advisory Committees.

It was further the duty of the Advisory Committees to arrange for the accomodation of squads. Large squads were accommodated in central places, to serve several neighbouring farms, going to and fro by bicycle or other means. They were billeted in schools, in institutes, in barns, under canvas, in village inns or in country houses (occupied or unoccupied). Small squads were accommodated with farmers and, where possible, with local residents. Squads were responsible for their own catering.

The wages of each squad were settled by the Advisory Committee with the employer, subject to the general condition that the pay of adults was to be at the current rate for the job on which they were employed, and that the pay of boys was to be threepence or fourpence per hour. Where the Advisory Committee and the employer could not agree the case was decided by the National Service Commissioner or Sub-commissioner.

The employment of public school boys, in particular, was a great success; indeed, not a single complaint was received at the Food Production Department concerning any of the numerous camps or gangs (1).

Arrangements for the 1918 harvest were made well in advance. As early as February the Food Production Department urged the War Agricultural Executive Committees to ascertain as soon as possible the demands of the farmers for school boy labour (2). Many Executive Committees appointed District Representatives for School-boy Labour, in order to obtain the necessary information. By arrangement with the Ministry of National Service camps were formed where much harvest labour was required (3). In all about 15,000 boys from public and elementary schools, boy scout divisions, etc., were employed in the harvest of 1918 (4).

Another source of additional labour for the 1918 harvest was found in the temporary release of local authority employees and policemen (5). The Ministry of National Service issued a Circular Letter to all county clerks, town clerks and chief constables, in which special facilities were granted for the purpose, and the Food Production Department instructed the Agricultural Executive Committees to communicate with the local bodies in their area with a view to obtaining the assistance of as many employees and policemen as could possibly be spared.

Yet another source of labour for the 1918 harvest was found in the employment for part of their time of persons who had other occupations. In many districts Part-Time Committees had already been formed under

(1) *Journal of the Board of Agriculture*, December 1917.

(2) Memorandum, dated 27 February 1918, addressed by the Food Production Department of the Board of Agriculture to County War Agricultural Executive Committees (*Journal of the Board of Agriculture*, March 1918).

(3) Memorandum dated 5 July 1918, issued by the Food Production Department of the Board of Agriculture to County War Agricultural Executive Committees (*Journal of the Board of Agriculture*, August 1918).

(4) *Journal of the Board of Agriculture*, August 1918.

(5) Memorandum cited in note (3).

the Ministry of National Service and these also assisted in finding part-time labourers for farm work. In districts where such committees did not exist, the Food Production Department suggested that the Agricultural Executive Committees should appoint local representatives to organize part-time labour and place it with the farmers. In some counties it was arranged that all the roadmen should be made available as part-time workers. Large numbers of men were also released for part-time work during the harvest by quarry-owners and other employers of labour.

Towards the end of the war discharged sailors and soldiers also became available for work on the land. Thus, for example, in August 1918, the Food Production Department suggested that such men should be trained as tractor-drivers, by arrangement between the Agricultural Executive Committees and the Local War Pensions Committee (1). They were to be paid by the Ministry of Pensions until such time as they were taken over by the Executive Committees as competent tractor-drivers.

J. K. M.

ITALY.

MEASURES ADOPTED DURING THE WAR TO MAINTAIN THE SUPPLY OF AGRICULTURAL LABOUR.

The immense quantities of material of all kinds required for military operations and for the needs of the Italian army, the increasing difficulty in obtaining supplies from abroad, rendering necessary the maximum utilization of internal resources, the calling up of all military classes and of those who had undergone a second medical examination after being pronounced unfit, the necessity for safeguarding the sources of national production, and for maintaining intact the economic forces of the country, were all factors converging to lead the Italian Government to issue a series of measures during the war intended to ensure to farms the supply of labour essential to their working. The principal methods adopted to meet this need were the granting to those called up either total exemption or temporary leave from active service, and the employment of prisoners of war. A characteristic feature of the system of exemptions was its constant re-adjustment with the object of reconciling the changing requirements of national economy with the need of men for the army, and thus fulfilling at every moment the purposes for which it had been set up.

(1) Memorandum, dated 17 August 1918, issued by the Food Production Department to County War Agricultural Executive Committees. (*Journal of the Board of Agriculture*, September 1918).

As regards agriculture, we may note that during the earlier period measures of a general character were promulgated for the releasing of soldiers who could be utilized among others by farmers, but as mobilization proceeded and labour became less and less available, the need was felt for special and wider measures in view of the requirements of agriculture, formulated by agreement between the Ministries of War and of Agriculture. We will treat of each of these separately, with a short excursus on the employment of prisoners of war and on other measures adopted for supplementing the deficiency of labour in the rural districts.

I. — MEASURES OF A GENERAL CHARACTER FOR RELEASING SOLDIERS FOR INDUSTRY, AGRICULTURE AND THE PUBLIC SERVICES.

§ I. TEMPORARY EXEMPTION FROM SERVICE OF SOLDIERS ATTACHED TO PRIVATE FIRMS OR UNDERTAKINGS OF IMPORTANCE TO THE ARMY OR THE NAVY.

The first care of the Government was to ensure the supplies for the army. Hence, even from the beginning of 1915, the fundamental principle (1) was laid down that in the case of a call to the colours men of any class or category might be temporarily exempted from service provided they had been giving their services for at least a month previously in private establishments or undertakings which " provided material or labour on the account of the army or navy, or supplied raw material for the aforesaid."

In the actual carrying out of this principle, the military authorities considered it advisable to place certain limitations on the grants of exemption, as follows:

1. Privates promoted to the rank of officer were only eligible for exemption if they had completed a certain period of service in such a way as to fit them to discharge their new duties with ability and dignity (Circular 5,560 of 31 August 1915).

2. Officers of the reserve, in the auxiliary services, and those belonging to the complement of officers (*ufficiali di complemento*) could only be temporarily exempted if indispensable and when there was no possibility of replacement, such conditions to be estimated on the strictest and most rigorous lines (Circular already cited).

3. Officers or men, even though declared exempted, were not permitted to take advantage of exemption if they occupied positions in their unit or performed special duties of such a nature that their removal might be presumed likely to create inconveniences not counterbalanced by the utility of the work they could perform in the private firm or undertaking (Circular 2,842 of 16 August 1915).

The law avoided particularizing the firms and undertakings whose staffs were eligible for temporary exemption, confining itself to stating

(1) Decree law of 29 April 1915, No. 561. *Gazzetta Ufficiale del Regno d'Italia*, No. 115. Rome, 8 May 1915.

the proviso that the firms or undertakings must supply materials or work on the account of the army or navy or must furnish the raw materials for such. A classification of these firms and undertakings in fact presented great difficulty, as, from the immense number of materials and types of work necessary to the requirements of a modern army, either directly or indirectly all the national industries of a certain importance play their part in furnishing supplies to the army and navy.

Temporary exemption could only be granted when it was recognized that the men were indispensable to the duties they were discharging in the offices or undertakings and that there was no possibility of replacing them.

The ascertainment of the conditions on which exemption depended and the decision taken in the matter were alike delegated to special local committees, consisting of officers of the army and navy, assisted where thought desirable by persons not belonging to any administrative military department but of special technical qualifications and proved integrity. The composition of these committees was later modified by the addition of fathers of families who had one or more sons serving at the front. These had a consultative vote (Lieutenancy Decree 12 April 1917, No. 629). Representatives of the Provincial Agricultural Committees were also added (Lieutenancy Decree of 25 August 1917, No. 1,455).

Farmers or farm-managers who proposed to ask for the temporary exemption of their own staff made the application to the committee having jurisdiction in the area, stating the full circumstances, the complete number of persons attached to the farm, the duties discharged by the men for whom temporary exemption was desired, as well as all information going to show the necessity for their work and the loss or inconvenience, if any, likely to result to the farm by the withdrawal of the men for whom exemption was requested.

The aforesaid committees had the power to cancel the grant of exemption if it was proved to have been obtained irregularly (1).

In their judgment the circumstances making the person indispensable must be of practical importance (2); in relation, that is, to the urgency of the work, to the labour supply available, to the special qualifications of the persons concerned and to the importance of the objects it was desired to attain. The committee "must not lose sight of the fact that in the event of mobilization it is the first duty of every soldier to serve in his proper capacity under the colours, and that no one can be released from that duty, even temporarily, except for some State interest of import-

(1) The powers and duties in respect to investigation of claims and subsequent arrangements which by the Lieutenancy Decree were vested in the Minister of War, were transferred to the Minister for Arms and Munitions, as from 16 June 1917, the date of the creation of this latter Ministry.

(2) In paragraph 12 of the regulations for the execution of the Royal Decree of 29 April 1915, No. 561, and of the Lieutenancy Decree of 17 June 1915, No. 887, relating to the exemption of called-up men, approved by Ministerial Decree 30 June 1915. *Gazzetta Ufficiale del Regno d'Italia*, No. 175 Rome, 14 July 1915.

ance." It followed that exemption was to be a matter for consideration only when the Committee was assured that the individual work of the men in private firms could contribute in a marked and positive way to the advantage of the State, with results that could not otherwise be attained.

When it became necessary to decide between several men having the same qualifications as to which among them might be declared eligible for exemption, preference had to be given to these who belonged to the older classes and who had not received military instruction.

Exemption was granted for a definite period not exceeding three months (1), subject to extension on further consideration if the circumstances which led originally to its being granted were still in existence on the expiration of the period. Failing such circumstances, the owners or managers of the firms or undertakings were expected to release exempted men on the very day and they had to present themselves on the next day to the competent authority so as to be drafted to their own units. Here it may be noted, that even when exemption had been obtained for a man, his employers remained under the obligation of seeking every means of releasing him at the earliest possible moment. The training of other members of the staff, taking on of new staff, utilizing the work of women or young persons, reducing the number of those directing the work, restricting production to what had direct relation to the requirements of the army or the navy, all methods had to be tried by the management before withdrawing a citizen from the performance of his military duties.

The business firms, establishments or undertakings had the power of appealing against the decision of the local committees to the Ministry of War or the Admiralty as the case might be, who if it was thought advisable could submit the appeals to a Central Committee, consisting of an officer of the rank of general, as chairman, and seven officers or civil officials of high grade of whom four belonged to the army administrative departments and three to the naval administration. To this committee there was added later (Lieutenancy Decree of 12 April 1917, No. 629) (2) a member possessing special knowledge of agricultural matters, with a vote in debate, nominated by the Minister of Agriculture, who also nominated another person, similarly qualified, to act as his substitute. Questions of principle relating to temporary exemptions (interpretation of regulations, instructions to be issued to local committees, etc.) could also be referred to this Committee.

Finally in order to ensure that the procedure of the local committees for temporary exemption was in order, the Minister of War could order inspections to be held. The inspectors (officers of the army or navy of the rank of major-general or colonel or of corresponding naval rank, or civil officials of the two administrations of equivalent grade), after examining the minutes of the local committees, making enquiries and obtaining the necessary information, issued to the chairmen of the

(1) We shall see later the modifications introduced as to this limit in favour of agriculture.

(2) *Gazzetta Ufficiale del Regno d'Italia*, No. 100. Rome, 28 April 1917.

local committees the necessary instructions for doing away with any irregularity or putting down any abuses the inspection might reveal. They could even, if confronted with facts of exceptional importance, at once cancel exemptions which proved to have been granted without due reason. They had moreover to present a detailed report to the Minister of the investigations they had made, giving him an account of the measures adopted, and stating proposals that they considered advisable in the interests of the service.

By degrees the need was felt for special enactments relating to definite groups of firms supplying the needs of the army. Thus it had been observed that the criteria followed by the local committees in deciding on the eligibility for exemption of the staff of firms supplying meat, bread, provisions, forage, fuel, differed considerably. It was however felt to be desirable that the procedure should be uniform in such cases, with the double object of ensuring the army commissariat service and of diverting as few men as possible from the combatant services. Acting on these considerations the Ministry of War issued certain general instructions which the committees were to keep in mind (1). For this purpose a grouping of the staff of the firms thus specified was made under the following classes :

1. Managers or representatives of the leading firms which had undertaken supplies for large areas involving complicated organization on the basis of contracts with corresponding schedules extending over long periods. In these cases the exemption as a general rule had to be granted since it was to be presumed that the regular working of these firms depended either wholly or in part on the activities of this managing staff; in the case however of the said managers or representatives merely discharging administrative functions of a kind which could be easily undertaken for them, exemption was to be refused :

2. Representatives of the aforesaid firms in command-areas. persons, that is, to whom the large firms in areas of greater importance entrusted the execution of the service required and the maintenance of relations with the military authorities. As regards these agents, charged as they were with the custody and with the distribution of the goods on the account of the firm and accordingly, in the majority of cases, replaceable by other persons exempt from military duties, there was as a rule no excuse for exemption. Exceptions could only be made in command-areas of special importance, where a complex organization for the provision of supplies was necessary, or in cases where there were certain features in the work of supply which made it impossible for any but persons with definite qualifications to discharge the business adequately :

3. Small firms and local military stores to which recourse was customarily had in all the cases which the administration could not meet

(1) Circular of 9 January 1916, No. 731 of the Ministry of War (Under-secretaryship for arms and munitions), relating to the temporary exemption of the staff of firms supplying barrack requisites, meat, bread, provisions, forage and fuel to the army.

from its own resources or with the means contemplated by the contracts with the large firms. The corresponding staff was not as a rule indispensable by the conditions laid down in the Decree of 29 April 1915, No. 561, and exemption was to be refused, unless exceptional circumstances induced the local committees to submit the question to the central administration.

By the Circular of 10 June 1916, No. 19,104, intended to meet the existing hindrances to the efficient working of the national industry of manufacture of tanning extracts, of curing of skins, and of military boot-making, resulting from the calling up of the highly-skilled workmen (1), there was definitely laid down for each of these industries the number of indispensable and non-replaceable persons required in relation to a fixed output. In this way a sound guiding principle was available for the exemption committees in making their decisions.

In an analogous way, in order to ensure to the woollen mills their maximum productivity, the Ministry of War drew up a table of the staff required (2), in accordance with the producing power of the mills so as to serve as a guide to the committees in deciding the staff indispensable to ensure the regular working of the mills, as the interests of the army supplies and the national economy required.

When applications for exemption were made, based on approved reasons of a serious kind, on behalf of soldiers not conforming to the provisions of the Decree of 29 April 1915, No. 561, and unable to obtain exemption in virtue of it, the local committees — after having ascertained the grounds of the application and on an exact statement of the importance and exceptional nature of the reasons having been rendered — were obliged to refer the matter to the Ministry (Circular 31 August 1915, No. 5,560), setting out all the reasons which in their view entitled the application to favourable consideration.

§ 2. TEMPORARY EXEMPTION FROM MILITARY SERVICE OF SOLDIERS CALLED UP BUT ENGAGED IN THE PUBLIC SERVICE OR ON SERVICE OF NATIONAL IMPORTANCE.

After ensuring the necessary staff to private firms large or small supplying materials or work for army needs, another class of interests of capital importance had to be met, namely that of the public services and the national economy. With this in view there was issued the Lieutenantcy Decree of 17 June 1915, No. 887 (3) which laid down that for the duration of the war temporary exemptions from military service might be granted

(1) For the skin-curing industry the instructions contained in the circular cited were replaced by others by means of the Circular 15 October 1916, No. 34,860.

(2) Circular 1 August 1916, No. 27,000 of the Ministry of War (Under-secretaryship for arms and munitions) relating to the temporary exemption of the staff of woollen mills.

(3) Lieutenantcy Decree of 17 June 1915, No. 887, relating to the temporary exemption from military service of men called up who were engaged in the public services or in service of national importance. *Gazzetta Ufficiale del Regno d'Italia*, No. 158, Rome, 24 June 1915.

to men called up, who were enrolled in the territorial militia, and had been giving their services for at least one month in the capacity of managers, technicians or highly-skilled workmen in:

(a) State undertakings or such private undertakings as had had entrusted to them public services of national importance, or which supplied materials or work to the State;

(b) undertakings belonging to the provinces or communes or such private undertakings as had had entrusted to them public services of local value or which provided materials or work of importance to the provinces or to the communes:

(c) large firms whose activity was of importance to the national economy or the public service.

Exemptions had to be restricted to the cases in which the withdrawal of the men would involve the complete stoppage of the undertaking or a serious disturbance of its normal working.

The new concession was limited to the managers, technicians, or skilled workmen because it was considered that it was only by the removal of those who had in their hands the direction, the responsibility, the administrative threads of the business, or those who fulfilled functions not easily delegated to temporary staff, that any serious disturbance of the business could arise or cessation of its activity be brought about.

The character of the undertakings contemplated in this decree was one especially economic: thus among those provided for under clause (c) were undoubtedly included the banking and credit institutions, savings banks and the like. This was the view repeatedly taken by the Central Commission for Temporary Exemptions already mentioned.

The interests of public order were so far involved in the granting of exemptions in that by the stoppage and closure of large firms or undertakings many hands would be thrown out of work and less production of necessities would go on, and hence the general feeling of unrest would be much increased.

The application of the term "large firm or undertaking" underwent some modification as the war went on and the want of materials available for public administration and for the country generally became more marked, while there were fewer persons available either as managers or workmen, and it came to be recognized as necessary to encourage the output also of firms of minor importance. Hence the demands of the military administration in judging of undertakings of national importance became by degrees less stringent.

As a result, the provisions of the Decree cited could be extended equally to bank clerks of the banks of issue of the kingdom, who had been in such employment for at least a month, were recognized as not replaceable, and formed part of the territorial militia. It was essential that the staff of such institutions should have special qualifications for their work which must be performed with peculiar skill and care. These considerations assumed particular importance in respect to the Bank of Italy,

which is not only a bank of issue and a credit-bank, but also discharges the major part of the business of the State Treasury.

Special mention must be made of the Circular of 9 January 1916, No. 730, which ordained that in case of urgency provisional exemptions could be granted, for not more than a fortnight as a general rule. The urgent nature of the case had to be decided after strict enquiry by the chairman of the committee, who was personally responsible to the Ministry for the decision taken.

II. - SPECIAL MEASURES FOR AGRICULTURE.

Agricultural undertakings could and did take advantage of the measures examined above and in particular of the provisions of the Lieutenantcy Decree of 17 June 1915, No. 887, relating to temporary exemptions to be granted to soldiers who were working in the public service or for the national economy: but since the national economy is closely bound up with the life and progress of the rural districts, the Ministry of War came to the decision to allow special measures to be taken to ensure the maintenance of families of agriculturists and to safeguard the general interests of the country. These measures were taken in conjunction with the Ministry of Agriculture, when in March 1917 there was set up a Department for the Employment of Military Labour in Agriculture (1), later, in December 1917, merged with various other services created for the duration of the war into a single Department under the title of *Mobilitazione Agraria*. We may now explain the main lines of these measures as set out in a series of circulars of 1916, 1917 and 1918.

§ 1. AGRICULTURAL EXEMPTIONS AND GRANTS OF LEAVE.

The system followed in general was that of granting leave for periods when work was particularly urgent, thus endeavouring to meet the need for farm-hands without doing anything prejudicial to the requirements of the army. In the first year of the war no deficiency in the supply of labour was observable because the calling up was only in its first stages and went on gradually: but in the summer of 1916, on the approach of harvest, apprehensions were expressed on many sides that it would be necessary to prolong the harvest beyond the usual time on account of the want of hands. An end was put to these fears by the issue of agricultural leave to soldiers and by the employment of prisoners.

The department mentioned above, recently set up in close relation with the Ministry of Agriculture, was charged with the duty of studying the questions in consultation with the Recruiting Board, and on their pro-

(1) The Italian Government nominated as head of this Department Count Senator Eugenio Faina, former president of the International Institute of Agriculture, who directed its organization and working.

posul the Circular of 7 June 1916, No. 162, was issued by which short periods of leave were granted for harvesting and threshing to any soldier of the older classes of the territorial militia or physically unfit for general service provided he was a mechanic or the sole able-bodied male between the ages of 16 and 60 of the family of a produce-sharing tenant or was the manager of a farm paying a main tax of 1000 liras; in extraordinary circumstances soldiers from the local command area were granted leave from the colours, and also prisoners were detailed for the purpose.

Soon after, namely on 10 July, the Ministry of War, in order to meet the requirements of certain provinces, granted further short periods of leave of ten days for the hemp harvest, on the same conditions. But it was recognized that measures of this sporadic type created many difficulties without much result of value and thus recourse was had to the first systematic arrangements embodied in the circular of 7 August 1916, No. 496 (1).

A. THE FIRST SYSTEMATIC ARRANGEMENTS FOR THE GRANTING OF LEAVE.

In view of the fact that between August and December much work goes on in rural districts so that agriculturists serving could not but be aware of the need of their presence on the farms, the time between 25 August and 6 December was divided into five periods of 20 days each, beginning from the dates as shown below:

First Period	25 August	to 13 September;
Second "	15 September	to 4 October;
Third "	6 October	to 25 October;
Fourth "	27 October	to 15 November;
Fifth "	17 November	to 6 December.

Leave had to begin and end on the days fixed for each period. No leave was granted for intermediate dates, nor could any extensions be granted on any ground whatever.

Leave for a period of 20 days, including travelling, could be granted to soldiers of the older classes of the territorial militia (those born between 1876 and 1881), and to soldiers declared unfit for general service, of whatever class or category, who were:

(a) heads of families or members of the families of produce-sharing tenants;

(b) owners or occupiers whether by emphyteusis or as tenants of small holdings cultivating them personally with the assistance of their family, such leave being granted only on condition that there was not in the family any able bodied man between the ages of 16 and 60

By a "family" in this connection there was not to be understood a group of several families with ties of kindred working on the same holding; but the actual family (father, mother and unmarried children) whether they themselves carried out the whole work of the farm or shared a home with relatives.

Leave could moreover be granted to managers, foremen or assistant foremen, of large agricultural holdings paying a minimum of 1000 liras of main land tax (not including, that is to say, the additional tax imposed by the province and the commune) and left by the call to the colours entirely without managing staff, and leave could also be granted to temporary hands who had given assistance without drawing wages, but on a produce sharing agreement.

No grants of leave could be made to soldiers who were in the zone of actual military operations.

For units, quartered or on service in the war zone, grants of leave could only be made up to 5 per cent. of the strength allowed for by the army formation, outside the zone more latitude was allowed, the basis being a percentage fixed by the commanders of the territorial corps in relation to the needs of the service.

The commanding officers of battalions or dépôts, before passing men for leave, and the mayors of the communes, during the course of the leave, were expected to see to it that the men themselves understood the underlying purpose, social and not merely individual, for which the grant of leave had been made, and that they were prepared to lend their assistance — once the needs of their own holdings were provided for — to other farmers of the locality and particularly to those who might be under arms and for reasons of age or from military exigencies were not in a position to obtain leave.

If within the limits of time indicated need arose for drivers of agricultural machines, the mayors, on the application of individual farmers and after having ascertained that there actually were machines without drivers and that there were not on the spot the means to provide persons capable of working them, had the duty of forwarding applications to the command of the territorial army corps, stating exactly the days and the localities in which the work had to be executed, and the number and kind of skilled men required. The said commands were to draw the necessary staff from the battalions of territorial militia placed at their disposal and from soldiers of any class recognized as unfit for general service. The men detailed for driving the machines must be left at the disposal of the farmers for the whole time reckoned necessary to complete the work in the specified locality.

In those areas where agricultural work is done by wage-earning labourers or by means of casual labour supplied by immigrant labourers, and also in those where there proved to be a shortage of labour during the period of time mentioned above, the commands of the territorial army corps were authorized, on the application of the mayors of the communes included in the area of their jurisdiction and independently of any staff supplied for machine-driving, to furnish the men required, drawing them from the battalions of the territorial militia or from the corresponding depots.

Before acceding to these requests the commands of the army corps submitted them to the provincial agricultural commissions established in the chief town of every province, in order that the said commissions (formed

for the purpose of the prefect, the representative of the military authority and the Director of Itinerant Agricultural Instruction), might judge of the actual necessity or desirability of granting the applications, either wholly or partially, and might submit their conclusions to the commands of the territorial army corps, for definitive action.

As soon as the numbers of permits had been fixed, the commands of the battalions or the depots made choice of the men from rural districts. These who availed themselves of the help of the soldier labourers had to find the necessary implements. Food and suitable lodging had to be provided by the bodies or individuals at whose disposal the men were placed.

A wage equivalent to that paid to free labour had to be set aside for soldiers detached as above, this wage being chargeable on the bodies or private persons availing themselves of the work of the soldiers. This was paid to the authority responsible for the men, such authority using a portion (60 centesimi) to meet the expense of outfit, paying another portion (one lira) as pocket-money to the men, and depositing the rest in post office savings accounts made out in the name of the individual concerned.

The commands of the army corps in conjunction with the prefectural authorities had to take every means to ensure the exact carrying out of the agreements.

Later (1) certain restrictions contained in the circular detailed above were abolished, and in addition to the concessions already made, special leave was granted for the sowing "so as to ensure the cultivation of the fields and to avoid the leaving unsown of any farms".* Leave for this purpose could be granted to a soldier — whatever might be the class in which he was enrolled or his state of fitness for general service — belonging to the family of a produce-sharing tenant which had not benefited and could not benefit by the various kinds of agricultural leave above mentioned, which did not include an able-bodied man between the age of 16 and 60 and required to sow at least a hectare in cereals in the course of the season.

Besides the families of produce-sharing tenants, families of owners or occupiers could apply for leave to be granted for the sowing, also those of holders in emphyteusis and tenants of small farms in the same circumstances and provided they cultivated their holdings themselves: similarly those of casual labourers not receiving wages or of wage-earners who assisted in the wheat harvest. In the case of wage-earners it was a necessary condition that the amount received in kind of various sorts of produce was of greater value than the money wage.

For the above purposes the expression "family occupying a holding on a produce-sharing tenancy" (*famiglia colonica*) was understood in the agricultural sense, that is, as denoting the group of persons consisting of one or more families living together, farming the same holding and bound by the same produce-sharing agreement. Hence, even in the case where the holding was worked by separate families, the leave could be

(1) Circular of 13 October 1916, No. 604. *Giornale Militare Ufficiale*, No. 61^a. Rome, 14 October 1916.

granted to one man only. It lasted twenty days, not including the journey.

Such was the procedure up to December 1916. On that date in view of military exigencies, notice was given to the Department for the Employment of Military Labour in Agriculture, then regularly constituted, of the imminent calling up of the classes of men born in 1874 and 1875, and of those born in the first four months of 1899, and the Department was at the same time invited to prepare a scheme calculated to minimize as far as possible the effect this must have upon agriculture.

A scheme was accordingly prepared on the basis of full and careful enquiries, from which it appeared that for the purpose of working the farms throughout the country the total complement of persons required was about 143,000 released for an indefinite period, and 90,000 on thirty days leave repeated at least twice a year, during the busy seasons. The scheme was in the main accepted by the Ministry of War and the Supreme Command, these bodies however reducing the exemptions to 100,000 and the grants of leave to 70,000, but under certain conditions intended to make this withdrawal of forces less prejudicial to the army, inasmuch as both exemptions and grants of leave were to be confined to the unfit and to the soldiers belonging to the classes of those born in the years 1874 to 1877. In view of these restrictions and in order that the Council of Ministers, to whom was reserved the decision in a matter which touched so many personal and regional interests, should be enabled to deliberate with full knowledge, the Department drew up a tabular statement in which were shown, province by province, the results to be anticipated from the distribution of 100,000 men on leave, according as the basis adopted for the distribution was the system of land-tenure, the gross value of the produce, the rural population or the area cultivated. The Council of Ministers, however, at the sitting of 16 February 1917, felt that to propose differential treatment, exempting some and granting temporary leave to others on whatever basis the distribution might be made, would create an unfavourable impression in some provinces. Hence it was considered inadvisable to adopt the scheme and arrangements were made for meeting the more urgent requirements of agriculture as quickly as possible by means of grants of temporary leave.

The Minister of War consequently authorized for the months of March and April two leave-groups, each including 50,000 men, drawn from the territorial zone, and 30,000 drawn from the mobilized troops, each group to have one month's leave, the scheme being confined to the classes of those born in 1877 or earlier, and to the unfit up to the class of those born in 1881. These arrangements formed the subject of the circular No. 137, of 19 February 1917 (1). A few days later regulations followed for a small number of exemptions in favour of the managers of

(1) Circular 19 February 1917, No. 137, relating to the placing of military labour at the disposal of agriculture. *Giornale Militare Ufficiale*, No. 13^a. Rome, 19 February 1917.

farms and of co-operative associations. But the impression produced was not favourable, and at the sitting of the Chamber of Deputies of 13 March the Minister of War announced that from 15 May a new period of leave grants would be initiated for the same total number of men, 160,000, but divided into three relays, of 40 days each. The number of soldiers to proceed to the rural districts thus fell per relay from 80,000 to 53,333, but to counterbalance this the number of working days was increased. The Minister added that the limit of that part of the yield of a farm on which a tax could be levied would be reduced, exemptions would be allowed for certain classes of skilled hands, and the limit of area to be cultivated in order to obtain a grant of leave would be done away with. The number of exemptions to be granted to managing staff and to skilled hands was not fixed.

These provisions were given concrete shape by the Minister of War in Circulars Nos. 233 and 234 of 4 April 1917 (1).

It very soon however became evident that a much larger number of men must be detached, and towards the end of June the Department for the Employment of Military Labour received instructions to present a new scheme for the purpose. The enquiries necessary, begun in the middle of July, led to the Circular 552, of 25 August 1917 (2), which cancelled the regulations contained in Circulars 137, 151, 168, 233, 234 of 1917 and introduced a new system which we shall proceed to explain.

B. THE NEW REGULATIONS RELATING TO TEMPORARY EXEMPTIONS AND OTHER ARRANGEMENTS FOR DETACHING SOLDIERS FOR THE BENEFIT OF AGRICULTURAL PRODUCTION AND PARTICULARLY FOR CEREAL CULTIVATION.

1. *Temporary Exemptions from Military Service.*

Temporary exemptions from military service, in conformity with the prescriptions of the Decrees of 29 April 1915, No. 561, 17 June 1915, No. 887, and 12 April 1917, No. 629, of which mention has already been made, could be granted on the basis of the new circular with or without fixed date of expiry, and were all liable to be revoked in accordance with military exigencies. Those with fixed date of expiry could extend to six months in each case and must be commensurate with the presumable duration of the circumstances required to exist both on the side of the farm and on that of the soldier to be exempted before the privilege could be granted. On any one of these circumstances ceasing to exist, the person benefiting by the exemption (whether farmer, manager or head of family) was expected at once to release the exempted man, and the latter was in his turn expected to report himself to the unit on the strength of which he was.

(1) *Giornale Militare Ufficiale*, No. 25^a. Rome, 6 April 1917

(2) *Giornale Militare Ufficiale*, No. 58^a. Rome, 25 August 1917.

Broadly speaking the exemptions applied as follows: those with fixed date of expiry, to managers of farms, managers of co-operative agricultural societies, managers of agricultural labour bureaux, and skilled workmen; the other type to manager of farms, skilled workmen, and to one soldier for every farm worked by a family not including among its members another able-bodied man between the age of 16 and 65.

The said exemptions could not be granted except to soldiers who belonged to the classes of those born in 1881 and earlier, or were unfit for general service of whatever class or category. Exception could only be made in favour of farms worked by a family when no soldier member of the family came under these heads. Release of men belonging to mobilized corps was subject to military exigencies.

(a) *Farms in General.* — Farms left entirely without technical or administrative management and of such size and value as completely to absorb the attention of a manager could apply for the temporary exemption of their own manager (this might even be the owner provided he farmed the land himself) or of any older man who at the time of the calling up had been one of the managing staff.

To determine the value of the farm on its minimum computation, the following criteria were employed, varying somewhat as between province and province: the area of the farm, the capital sunk in it, whether in buildings, equipment or industrial plant, the gross yield and the yield on which tax could be levied; this last could not in any case be less than 6,000 liras according to the latest valuation.

Small farms not reaching the minimum value indicated above were permitted to group themselves with the object of jointly fulfilling the required condition and obtaining the exemption of the senior man serving who at the time of the calling up had been one of the managing staff and who could effectively assume the management of all the associated farms.

The duration of the exemption had to be commensurate with the period of time for which the farm required the attention of a manager when worked along its normal lines.

The exemptions, so as to keep within the numerical limits fixed by the central administration and communicated from time to time to the provincial agricultural sub-commissions, and to the exemptions committees, were granted according to a scale of importance to be determined by the sub-commissions themselves. The exemptions committees were expected to communicate to these latter the decisions adopted, whether for or against the exemption in each case.

(b) *Co-operative Agricultural Societies.* — The exemption of the manager might also be granted in the interests of co-operative agricultural societies or federations of such societies, provided they were legally constituted and could show on production of the balance sheet or other documents that they had reached on the working of the previous year a financial position as follows:

1. For co-operative purchasing societies (consortia, syndicates, etc.), the value of the goods resold to members, 500,000 liras annually;

2. For co-operative societies for the sale of produce with or without elaboration of the raw material (co-operative vine-growers' societies, co-operative dairy societies), the value of the raw material delivered by the members, 200,000 liras annually ;

3. For co-operative credit societies (rural banks, agricultural banks, etc.), bills in hand at the close of the previous financial year, 100,000 liras.

Exemption might, moreover, be granted in the interests of single sections of co-operative agricultural societies or their federations, always assuming that the individual section had reached the financial position above indicated.

Smaller associations might associate with the object of jointly reaching the minimum financial standing prescribed and of applying for the temporary exemption of the senior among the managers of the associated undertakings.

(c) *Agricultural Labour Bureaux*. — Exemptions might be granted to the managers of agricultural labour bureaux and their federations, when it was proved that the bureaux were left without managing staff and when they were regularly constituted and recognized on the testimony of the provincial agricultural commissions as taking a prominent place in the agricultural economy of the province.

(d) *Skilled hands*. — Full claim to temporary exemptions for the period necessary for the completion of the work was accorded to head workmen or skilled hands, performing especially important functions in the agriculture of the district and attached either to farms worked conjointly or separately or to undertakings employing agricultural machinery (steam ploughing, threshing, installations, etc.)

The skilled hands having first claim to exemption were drivers and mechanics for agricultural machinery, stockmen or stud grooms, milkers, grafters and pruners, cellarers, olive crushers, cartwrights, ploughmen, teamsters, irrigators (whether of rice-fields or employed in the general distribution of water).

In respect to skilled workmen not specified, or in cases of doubt or of different qualifications or functions in different regions, questions were addressed to the Ministry of Agriculture which submitted them, with its own view, to the Central Office for Exemptions (Ministry of Arms and Munitions).

Farmers of small holdings employing hired labour, if the holdings were intensively cultivated and of an area of less than 20 hectares, received consideration on an equal footing with skilled hands, provided they effectively replaced a particular skilled man (ploughman, teamster, milk-er, irrigator, etc.), and provided there was no other person equally qualified to do so on the holding.

(e) *Farms Worked by the Family of the Farmer*. — On farms worked by the family of the farmer and with a mixed cultivation (field and orchard) requiring the continuous work of the whole family throughout the year, the family of the actual cultivator could, if left as a result of the call-

ing up without an able-bodied man between the ages of 16 and 65, apply for temporary exemption (with no fixed date of expiry) for one of the soldier members of the family, of the classes of those born in the years 1874 to 1877 inclusive, or unfit for general service of any class whatever, or failing either of these, for the eldest man out of the remaining classes, if possible not of a later class than that of those born in 1881.

By the family of the actual cultivator of the land was understood the whole number of persons living together, even if not all linked by ties of kindred, who worked in the common interest the same holding (whether owned, held in usufruct or in usage, leased on a rent-paying or on a produce-sharing basis, or on a mixed system).

The holding must at least have the value as determined by the following criteria : the sowing of grain or rice for 1917-18 must not be less than two hectolitres of seed ; the area cultivated for the same year must be three hectares, excluding meadow or natural pasture.

In classifying the farm there were taken into consideration, besides, the sowing and the area, the quantity of orchard trees, and of trees and plants of industrial value growing on the land (vines, olives, mulberries, the citrous fruit-trees, and other fruit-trees), the quality and quantity of farm-animals with which the holding was stocked (cattle, horses or mules, poultry, pigs).

The exemption was revoked if the quantity of grain specified in the application for exemption was not sown on the farm.

In proposing the grants, the provincial agricultural commissions were to proceed within the numerical limits indicated by the Ministry of Agriculture, in decreasing order of importance, according to the rules laid down by the said Ministry.

II. *Ordinary Grants of Military Labour.*

Arrangements were further made that for the period of the autumn work (September to December) ordinary grants of military labour should be made. Such grants might be applied for and sanctioned exclusively on behalf of soldiers, who had previously been agricultural labourers, of the classes of those born in 1874 to 1877 inclusive, and if unfit for general service of any class whatever, who were, whether the one or the other, in the territorial zone or if not at the base in the war zone. The grants were for a period of 40 days, not including the journeys, and took effect in two relays from 13 September to 23 October and from 24 October to 3 December. The fixing of the number was the business of the Ministry of War ; the distribution was then made province by province through the Ministry of Agriculture which had to communicate to the provincial agricultural commissions the proportion of grants assigned to the respective province.

III. *Occasional Grants of Labour of the Forces of the Territorial Command Areas.*

To give effect to the measures already in force, the military authorities were authorized, whenever opportunity offered or an application was made, to allow detachments of men or individuals, as available, to take part in any farm work carried on in the place where they were quartered or not far away.

For the most part, men so detached had to return to their own quarters at night : when however the work in which their help was required was of a specially urgent nature, leave could be obtained for the men to be employed beyond the ordinary limits of the command area, and to pass the night away from their depot, even remaining absent from their quarters for some days ; but this extension of the measure was not to take place unless the results expected from it were of unquestionable value, and unless the men so detached could be conveniently boarded and lodged at the charge of the persons at whose disposal their services had been placed. The normal wage of the locality had to be paid by the employer to soldiers employed in this way for each separate piece of work.

The circular under consideration contains in addition arrangements for the employment of prisoners of war of which we treat separately.

To resume, it was a characteristic of the new system to distinguish farms where work was continuous from those where it was intermittent. In respect to the former, it took into consideration the exclusively brain work of the managers of large farms and agricultural undertakings, the part brain, part manual work of the skilled hands on farms where hired labour is employed, or of the head of the family on a farm rented on a produce-sharing agreement or otherwise, and finally the purely manual work of the casual labourer taken on at times of pressure of work. Exemptions for an indefinite period were thus granted to managers of large farms or agricultural undertakings, to permanent labourers and in the case of farming families, to one man for each family left without able-bodied men between the ages of 16 and 65 : exemptions for the period only necessary for the execution of the work, to some classes of skilled labour : the grants of 40 days of leave for agriculturists who cultivated small parcels of land not needing continuous work were maintained, and all purely manual work was provided for by organizing the services of soldiers of the local command-area and by employment of prisoners.

It will be seen that if the number of exemptions and grants of leave to be made had remained indefinite, the problem, thanks to the arrangements above described, would have been solved. As it was, the Ministry of War had settled in advance the number of the exemptions and grants of leave, fixing them respectively at 120,000 and at 350,000; it remained to determine the basis for the distribution among the provinces. From among the four criteria that might be adopted as this basis, namely, the system of land tenure, the area cultivated, the gross value of the agricultural produce, the number of the rural population, this last was chosen, account

being taken only of the males of full working age, between 15 and 65, and the number of these being calculated for each province. This population, amounting in all to 4,765,052, was subdivided into three groups:

Group (a), that of those continuously employed, included holders in emphyteusis or usufruct, produce-sharing tenants, labourers with hiring-agreements, herdsmen, ploughmen, cattlemen, shepherds, stockmen, stewards and bailiffs. There still remained two sub-classes, that of the agriculturists who cultivated their own land or the land belonging to the family and that of rent-paying tenants: in respect of neither of these was it known what percentage cultivated lands that required the exclusive attention of the farmer continued throughout the year, and what percentage cultivated land that only required seasonal intermittent labour; from investigations made it proved that out of the former sub-class — agriculturists who cultivated their own lands or the land belonging to the family — hardly one-tenth could be considered as employed in continuous work, and out of the rent-paying tenants one half. The (a) group, consisting of all these elements, included 1,658,214 men between the ages of 15 and 65;

Group (b), those not employed regularly, made up of the remaining nine-tenths of the sub-class of agriculturists who cultivated their own land, and of the other half of the sub-class of the rent-paying tenants, and also of the sub-class of the casual labourers or day-labourers (2,017,844 men of the ages indicated), included in all 3,012,506 men;

Group (c), made up of the sub-classes of nursery-gardeners, gardeners, woodmen, mushroom and truffle gatherers, etc. including 94,332 men, was not taken into consideration as being of less importance.

By fixing the proportion between the 120,000 exemptions and the total of those belonging to group (a), the percentage of 7.23 was obtained, and by fixing the proportion between the 350,000 grants of leave and the total of those belonging to group (b), the percentage of 11.66 was obtained. The results, to be anticipated from this scheme of distribution as applied in the different provinces were set out in a schedule which on being submitted to a Committee of four selected experts was unanimously pronounced to be the most satisfactory of all those drawn out up to that time. This scheme a few days after the publication of the circular we have just now detailed was put into execution in its entirety.

Arrangements were made in 1918 (1) by the Ministry of War in conjunction with the Ministry of Agriculture on lines similar to those of the circular above described and providing that beginning from 1 March of that year, the ordinary grants of military labour should be resumed. Applications for leave could only be made by soldiers who had previously been agricultural labourers, of the classes of men born in the years 1874 to 1898 inclusive, and — if unfit for general service — of any class, but not beyond that of 1892, who were in the territorial zone, or at the base depots

(1) Circular 13 February 1918, No. 71, relating to the granting of troops for the furthering of agricultural production and particularly grain cultivation. *Giornale Militare Ufficiale*, No. 114, Rome, 13 February 1918.

of the war zone ; such leave was of two months' duration, apart from the journey, and the grants were divided into five relays : from 1 March to 30 April ; from 1 May to 30 June ; from 1 July to 31 August ; from 1 September to 31 October and from 1 November to 31 December. For soldiers drawn from base depots of the war zone, there were grants to the number of 1,000 per day, up to a maximum of 20,000 for each relay apart from exceptions made necessary by military exigencies. The total number of grants of leave to be allowed from the territorial area for each of the relays was fixed by the Ministry of War. The distribution of the whole of the grants of leave however was made throughout the provinces by the Ministry of Agriculture. Application for them might be made by farmers employing hired labour, whether the farm was under intensive or extensive cultivation, preferably cereal cultivation, only when the permanent staff attached to the respective farms — whether bound by a yearly hiring agreement or for fixed periods — had been reduced, as a result of the calling up, by more than one-third. The number of grants of leave applied for was not in any case to exceed that necessary to complete the staff of the farms up to two-thirds of the ordinary proportion.

Application could further be made from farms cultivated by families, which, being left without any able-bodied man between the ages of 16 and 65, had not been able to obtain the exemption of a soldier member of the family because the farm to be cultivated did not reach the grade of importance provided for by the Circular 552 of 1917, above detailed, on the condition however that during the season 1918-19 not less than a hectolitre of grain had been sown and not less than half a hectare of land had been cultivated either in vegetables or in trees of industrial value.

The provincial agricultural sub-commissions had the power of arranging that soldiers on leave when their work was not absolutely necessary or pressing on the farm that had obtained the grant of leave, should proceed whether as individuals or in parties to put their services at the disposal of another farm. During leave the soldiers did not draw any rations nor any compensatory allowance, but — except when working with their own family — they had to receive from the farm at the disposal of which they were placed a daily wage equal to that paid in the locality for free labour.

In the following years also the needs of agriculture were kept well in view. To ensure that agriculturists of the classes up to and including that of the men born in 1900, who by profession were capable of working agricultural machinery, should be in readiness for the harvest operations, the Ministry of War authorized the commandants of the army corps to grant to such men leave of 15 days maximum duration besides the journey. Such leave could even be granted to those who had recently been on leave of other kinds, so long as no imperative claims of the service interfered. The Ministry of War, besides, though ordering the calling up of youths enrolled during the levy on the class of those born in 1901 enacted that recruits indispensable to the management of a farm where they might be engaged either on their own account or on that of their family, could obtain postponement of military service until the next

class was called up. Similarly the recruits of the class of those born in 1902 could obtain a year's postponement under the same conditions. Such postponements were granted on the basis of a certificate from the Director of Itinerant Agricultural Instruction, testifying that the work of the recruit was actually indispensable to the proper working of the farm.

In general it may be admitted that both on the side of the local committees and on that of the offices and the authorities charged with the issuing of the exemptions and grants of leave, while due regard was paid to the needs of the army, the utmost pains and care were taken so to apply the regulations as to bring about in the best possible manner the aim proposed; that, namely of increasing agricultural production, an achievement of such immense importance in the period under consideration to the national economy and the public food supply.

We will now pass on to discuss the employment of the prisoners of war.

§ 2. EMPLOYMENT OF PRISONERS OF WAR.

The employment of prisoners of war was regulated in Italy by a series of circulars issued either by the Army Commissariat Department or by the Commission for Prisoners of War established in connection with the Ministry of War, with the duties of acting as a bureau of information, of treating of all questions relating to them (accommodation, food, guarding, health, correspondence, etc.) and of putting into shape the necessary measures. The most important Circulars are those of 21 April 1916, No. 6,583 (prisoner labour), of 27 May 1916, No. 9,442 (employment of prisoners of war in agriculture and industry), of 14 November 1916, No. 24,112 (employment of the labour of prisoners of war), the Circular 8,755 of 1917, relating to the technical staff required for the work of afforesting, and the circular 6,411 of 25 February 1917, referring to prisoners of war employed in agricultural work. Some of the circulars discussed in the preceding section, relating to grants of military labour for agricultural work, include arrangements for the utilization of prisoners. We will here detail the main principles involved (1).

It must first be said that the prisoners were usually assembled close to the commands of those divisions to which the prisoners had surrendered. These commands had without delay: (1) to collect the prisoners into squads; (2) to ascertain the total number of officers and privates respectively, and to communicate these as soon as possible to the commands of the army corps, indicating the locality of the assemblage of prisoners; (3) to make them fall in and march under escort to the place designated by the command of the army corps. The internment of the prisoners was then arranged by means of concentration camps in the country. Their treatment and their employment were regulated in every particular.

(1) RACCOLTA DELLE DISPOSIZIONI DI CARATTERE PERMANENTE RELATIVE AI PRIGIONIERI DI GUERRA E AI DISERTORI DEL NEMICO. August 1918. Army Commissariat Department. Office of the Chief of Staff. Bologna, 1918.

With respect to this latter, in conformity with Article 5 of the Regulations annexed to the Fourth Convention of The Hague besides being put to work inside their quarters, the prisoners could also be detailed for work outside, for public or private administrative purposes, such as construction of barracks, agricultural work, road making or industrial work, etc., in accordance with special rules agreed to between the Ministries concerned and the Commission mentioned.

Officers only were excused from work, while all non-commissioned officers were called upon to do it, endeavours however being of course made to employ these latter as overseers, so far as the work permitted.

Prisoners were preferably not employed in gangs of less than 15 men, so as to avoid excessive splitting up of their guards. They could be employed however exceptionally, as circumstances or necessity dictated, in smaller gangs, especially when the place of work was in the immediate vicinity of a concentration camp, from which the prisoners were sent out each day and to which they returned when the work was over ; or in the case of skilled workers with a view to re-establishing small industries that were suffering from want of hands.

Discipline of prisoners while at work and the guarding of them was a matter for the territorial military authorities under whose jurisdiction they fell. These authorities made provision accordingly for forming into squads or groups the prisoners detailed for the work and for conducting them to the place of work under suitable escort, strictly proportioned to the requirements : ordinarily not less than one-tenth and not more than one-fifth of the number of the prisoners.

Quarters were arranged at the place of work in huts or tents. When the work was only a short distance away, the quarters at the depot to which the prisoners belonged could be used.

The military administration made provision for the quarters where State lands could be used and where considerations of season, altitude and climate made it possible to place the men under canvas. In other cases the public or private body at whose disposal the men were placed had to provide the accommodation.

Food was provided by the military administrations and the cooking done by the prisoners themselves.

The hours of work were not to exceed ten. Time for going and coming between work and quarters was counted as work-hours ; on the other hand time necessary for consuming rations while at work was not counted. Work on Sundays and holidays was forbidden.

With regard to pay, in the case of work on the account of and directly carried out by a public administration (State, provincial or communal), the pay was fixed at the rate of 5 centesimi for an hour's work. Besides this payment per hour, the public services were expected to pay the expenses of the escort guarding the prisoners. When on the other hand the work was done for a private individual, the pay for each hour of work had to be fixed on a scale proportionate to that of free labour, for the same quantity and quality of work, taking into account however the various negative

factors which tend to diminish the output from prisoners' work, such as the limitations arising from the need for a guard, the weakness of any spirit of co-operation, and above all the absence in prisoners of the stimulus of interest, always calculated to increase production.

Wages had to be paid weekly as a rule, except in the case of the public State services, which make payments on fixed dates, corresponding to those on which they lay claim to the monies due to them.

In addition to the agreed wage and by way of encouragement or reward it was possible, alike for the public services and for the private employer of labour, to give to prisoners whom they considered specially deserving from the quality or quantity of their work an extra recompense in tobacco, food or money.

Money payment however of this kind was not to be handed to the prisoners, but to the officer in charge of the escort who had it placed to the savings bank account of each one concerned.

When a few prisoners had to be employed in work requiring special skill either on account of its importance or its difficulty or the accuracy with which it had to be carried out, in respect of which those responsible had offered specially high rates of pay to the State, thereby indicating the good output they expected, the Commission for Prisoners of War could grant the prisoners a larger wage than that ordinarily given, placing it to their credit in their saving bank books, and could make special regulations whether as to the custody, the quarters, or the food of the few prisoners detailed for the work.

The public services or private employers concerned made provision for the technical direction of the work, and the supply of implements or tackle required also rested with them, as well as that of the special clothing required.

In some cases, officers or privates of special competence in the matter might be placed in charge of the technical direction, being told off for the purpose, more particularly in works of afforestation, for which special arrangements were made.

To ensure that the foregoing regulations were carried out with due regularity, the commands of the army corps in whose area work was being performed by prisoners of war deputed one of the officers of superior rank attached to the depots of prisoners of war to make surprise visits to the places where the work was being carried on with a view to satisfying themselves as to the sanitary conditions, the housing and food of the prisoners, the regularity of the pay, the existence of technical direction of the work and the proper discipline of the labour gangs.

Mention should be made of the Circular No. 137 of 19 February 1917 (1) which laid down special regulations for the granting of military labour for agricultural work. Among the arrangements made was one by which on the request of farmers' associations or of private farmers, the provincial agricultural commissions could apply to the Commission for Pri-

(1) *Giornale Militare Ufficiale*, No. 137. Rome, 19 February 1917.

soners of War in Rome for the work of the prisoners. The detachments applied for had as a rule to include 100 men, but could be reduced to a minimum of 30 in accordance with the local requirements. Those benefiting by the grant had to guarantee to the State the payment fixed by the provincial agricultural commission reckoned by each hour of work done by each prisoner (including the time necessary for going from the sleeping quarters to the place of work and for return); they were also expected to provide quarters both for the prisoners and for the officer and men of the guard.

Following on the publication of this circular and with the object of meeting as rapidly as possible the numerous applications for prisoners that were anticipated, the Commission already referred to thought it advisable to formulate certain general regulations in addition to those already set out (1).

On the basis of these there had to be formed in each army corps, at the headquarters of the various units, which necessarily been chosen for convenience of communication, one or more companies of prisoners of previous farming or rural experience for each of the provinces included in their respective areas of jurisdiction. As soon as these companies were formed, the commands of the army corps had to give notice of the fact to the Commission sitting in Rome, and to the agricultural commissions concerned.

Each company, varying in strength from 150 to 300 men according to anticipated requirements, was intended to supply gangs of labourers to meet the applications made by the provincial commissions to the Commission for Prisoners of War.

Military authorities were urged to see that the gangs of labourers were sent with the utmost possible despatch to the place of employment, and to come to an agreement with those employing the prisoners, especially as regarded quarters, so as to secure the inauguration of the services concerned.

The regulations already detailed held good for all that related to the treatment of the prisoners so employed, their discipline, lodging, food, hours of work, and pay.

Later on, the circular of 25 August 1917, No. 552, making as we saw fresh arrangements as to temporary exemptions and authorizing important grants of military labour for the benefit of agriculture, also enacted that prisoners of war, fit for work and not directly engaged in State works, should be equally distributed among all the provinces of the kingdom and placed at the disposal of the provincial agricultural commissions to be drafted to agricultural work.

Farmers' associations and private farmers who proposed to avail themselves of the work of prisoners of war had to make applications to these commissions indicating, among other points, the nature of the work,

(1) Circular No. 6,411, of 25 February 1917, relating to prisoners of war engaged in agricultural work.

the length of time for which a grant of labour was requested, which must not be less than a month, the number of labourers required, which could not be less than 15, the locality and the arrangements for lodging prisoners.

As to the results accruing, it may be considered that, once the initial difficulties of the organization of the service were overcome, they were in the main satisfactory. In the summer of 1916 twenty companies of prisoners were assigned for agricultural work in the rural districts. Particularly important was the sending of 2000 men provided with the necessary implements into Apulia for the harvest and the threshing. Applications whether for agriculture or for industry were practically all dealt with as they came in from the various regions, so that in October 1917 in the majority of the concentration camps only the sick or unfit were left (1).

§ 3. EMPLOYMENT OF WOMEN IN AGRICULTURAL WORK.

The employment of female labour in agricultural work varies in Italy from region to region.

In Sicily and in Calabria, the women are almost exclusively taken up with household work and rarely go into the field, and then practically only along with their immediate family or relatives. In Campania, the Abruzzi and in Apulia and Latium, on the contrary, women work in the fields too: they do hoeing or raking; they occupy themselves in the vineyards or gardens.

In Tuscany, in the Marches and in Umbria it is necessary to distinguish between the women of the family of a produce-sharing tenant and of the family of a day labourer. The former attend to the household and to certain farm duties on the holding. The latter are called upon for their assistance only in view of definite operations such as the hoeing in of seed, the cleaning of wheat or maize crops, etc., work in vineyards, orchards or gardens.

In Northern Italy, where the system of produce-sharing tenancies is general, the women are distinguished as in Tuscany; where it does not exist, they perform different field operations by the day, in particular working in the rice-fields, for cleaning purposes.

During the war, women replaced men on the whole in the different kinds of work previously done by men, especially in Central Italy where as a result of the special circumstances created by the prevalence of the produce-sharing system of tenure, the family occupying a holding on such terms could carry on a much larger number of farming operations than could be expected of labourers in the regions where rent-paying tenancies and occupying ownership of farms are the rule.

(1) See EUGENIO FAINA: L'utilizzazione dei prigionieri di guerra nei lavori agricoli. Communicated to the 47th Agricultural Congress summoned by the Society of Italian Agriculturists. *Bollettino Quindicimale della Società degli Agricoltori Italiani*, Nos. 7-8. Rome, 15-30 April 1917.

To encourage female labour to reach its maximum efficiency, it was enacted by a decree of the Minister of Agriculture dated 1 June 1916 (1) that medals for agricultural service or other rewards with certificates of commendation should be conferred by the Ministry on women who during the season of 1916 had distinguished themselves in their execution of agricultural work in place of men called up "in an exemplary manner, by their unremitting and valuable activities".

The farms and organizations which had made special use of female labour in agricultural work were also eligible for these prizes.

Communes, local war-time committees, agricultural societies and consortia, farmers' associations, agricultural labourers' associations, and other bodies could recommend to the itinerant instructors in agriculture the women, the farms and organizations deserving of recognition of this kind. The instructors then made up the lists and checked them, and forwarded them with their own comments to the Ministry. An effective stimulus was thus given to the replacement of the men by women in the rural districts, with excellent results, their work together with that of men beyond military age and of boys making it possible to ensure for the duration of the war the regular cultivation and production of the soil.

§ 4. THE VOLUNTARY CIVIL SERVICE AND THE "MOBILITAZIONE AGRARIA".

In order to ensure to agriculture a larger supply of labour, now that the calling-up of the older classes and of those who had undergone a second medical examination had much reduced the quantity available, and to give the greatest possible impetus to agricultural production in accordance with the food requirements of the country, some new and important measures were issued in 1918.

By the Lieutenantcy Decree of 12 February, No. 146 (2), the voluntary civil service was inaugurated, that is, citizens, both men and women, born between 1 January 1857 and 31 December 1903, were invited to state whether they offered their services either gratuitously or at a suitable remuneration and in what industry or public service carried on in the commune in which they resided.

The industries in which offers of voluntary assistance were made were the following: agriculture (work of all kinds relating to agriculture, the manipulation and the transport of agricultural produce); the provision industries (rice-grinding, milling, baking, macaroni manufacture, making of fruit and vegetable preserves, the slaughtering of animals for food, fishing); leather-making; the textile industries; building, road-making,

(1) Decree of the Minister of Agriculture dated 1 June 1916 on the establishment of rewards for agricultural service for women who during the season of 1916 distinguished themselves in the performance of agricultural work. *Gazzetta Ufficiale del Regno d'Italia*, No. 131. Rome, 5 June 1916

(2) Decree 12 February 1918, No. 146, relating to voluntary service rendered by civilians in making their work available for agriculture and specified industries, as well as for the public services. *Gazzetta Ufficiale del Regno d'Italia*, No. 44. Rome, 21 February 1918.

irrigation and drainage; industries and services meeting collective and general needs; mining, wood-working industries; chemical industries, metal-working and the manufacture of other mineral products.

The following were excused from offering voluntary services; (a) soldiers under arms, or on leave, including agricultural leave, and soldiers assigned to firms or undertakings of any kind, whether exempted from military service, under command or placed at the disposal of the firms in question; (b) those engaged in work in military establishments or those belonging to the auxiliary services, or requisitioned firms; (c) those engaged in agricultural work or already giving their assistance in the service of agriculture or in the manipulation or transport of agricultural products; (d) employees and others receiving pay in Government, communal or provincial offices or other public bodies; (e) those unfit for any kind of work; (f) doctors, veterinary surgeons, chemists and nurses following their own profession.

The scale of pay and the other conditions of work were agreed between the parties concerned and could not be lower or less favourable than those obtaining locally in accordance with wage scales and hiring agreements.

Persons taking up work on this voluntary basis enjoyed all the benefits of the laws protecting work-people and of those regulating insurance on the same conditions as other work-people, employees, or wage earners of any kind. They could obtain a certificate of service given and receive a special decoration.

A provincial committee for voluntary civil service was set up in each province, and a Central Committee was attached to the Ministry for the purpose of superintending this service throughout the kingdom.

When the voluntary offers of work were not sufficiently numerous to meet applications, measures were to be taken, according to the wording of the decree, to levy forced labour whether for agriculture or for the industries or public offices situated in the commune where those called upon for such labour resided, such levy to be confined to males of full age.

Of much wider scope and greater efficacy was the Decree of 14 February 1918, No. 147 (1), already cited, relating to the so-called "*Mobilizzazione agraria*" which called together and brought into action all the public and private forces calculated to stimulate the production of food-stuffs in the maximum degree (2).

This decree, in fact, enacted, that, for the duration of the war and up to the end of the complete agricultural year following on that in which peace should be made, the Ministry of Agriculture, with the aim of increasing

(1) Lieutenantcy Decree of 14 February 1918, No. 147, conferring on the Ministry of Agriculture for the duration of the war, and up to the end of the whole agricultural season following on the proclamation of peace, the oversight of cultivation and the organization of agricultural work and referring all disputes arising in consequence of the said decree to a Committee of appeal. *Gazzetta Ufficiale del Regno d'Italia*, No. 44 Rome, 21 February 1918.

(2) See in this connection: SEBASTIANO LISSONE: *La mobilitazione agraria ed il risveglio dell'agricoltura nazionale*. In *L'Agricoltura Italiana Illustrata*, No. 2. Milan, 25 February 1919.

agricultural production, was to take measures for the oversight of cultivation, for the organization of agricultural work, and further for the assignment to the best possible advantage of requisites of work and production. To this end, the Ministry had power :

(a) to promote, organize or carry out the cultivation of uncultivated lands or exceptional changes in the system of cultivation of value in view of the needs of the country ;

(b) to take measures, in conjunction with the Ministries of War and of Arms and Munitions, for the utilization, especially in the periods of pressure in farm-work, of soldiers and prisoners of war as available, and for the discipline necessary in connection with exemptions and with grants of military agricultural labour ;

(c) to take steps to put to employment on the farms, foremen and labourers who might be available through the organization of voluntary assistance, or in default of that through forced levy ;

(d) to promote increased manufacture of fertilizers, of spraying materials and of agricultural machinery, as well as the preparation and selection of seeds, and to exercise oversight over production and trade in the above commodities ;

(e) to distribute labour, machinery, implements, fertilizers and spraying materials, in such a way as to ensure the maximum yield, and also to facilitate the transport of labour and of everything necessary to agriculture ;

(f) in general, to adopt every measure tending to the increase of agricultural production and to the safeguarding of the food supply.

All citizens, men or women, whose habitual occupation was agriculture or who were considered fit for such work, could be called on for it. Forced labour had by preference to be employed locally. Exactly as in the case of voluntary civil service, the scale of remuneration, the possible payments in kind and any other condition as to the work of those giving forced labour were agreed to between the parties concerned, and could not in any case be less than those obtaining locally in accordance with wage scales or hiring agreements. Where these did not exist, customary conditions were observed.

The forced levy of labour for agriculture and the agricultural industries was to take precedence of forced levy for any other industry.

The organization created for the carrying into effect of the "*Mobilizzazione agraria*" was the following :

Attached to the Ministry of Agriculture there was instituted a Central Committee of Agricultural Mobilization, composed among others, of four members chosen from experts in economic and technical matters relating to agriculture ; of two members chosen from persons of experience in farming and two from agricultural labourers, the Minister acting as chairman. In every province a provincial agricultural commissioner was nominated, the same criteria for the choice being adopted in each locality. This commissioner acted as chairman of the section for the agricultural mobilization service attached to every provincial agricultural commission.

Communal and intercommunal agricultural commissioners, throughout the whole province, had to act in collaboration with the provincial agricultural commissioner.

Other responsibilities fell to the share of the itinerant instructors in agriculture, and to agricultural societies and farmers' associations.

The section for the agricultural mobilization service composed, besides the chairman, of a delegate of the military authority and of six representatives of farmers and agricultural labourers, chosen on an equal footing, was summoned to pronounce *inter alia* on measures relating to the shortage or excess of agricultural labour relative to the local demand, and on measures to regulate and facilitate the migration of labour between province and province, in consultation with the sections of the adjoining provinces. To the same sections were delegated the attributions relating to the temporary exemptions of soldiers called up and to the grants of agricultural leave, exercised in every province by the provincial agricultural sub-commission, referred to in Circular No. 137 of the *Giornale Militare Ufficiale* of 19 February 1917.

The provincial agricultural commissioner was to take steps, in addition to the exercise of special attributions, to draw up an agricultural census of the kinds of cultivation, of the labour and the requisites of labour, to note the variations in the area devoted to different kinds of cultivation in the province, and to put forward all measures likely to increase agricultural production (1).

The communal or intercommunal agricultural commissioner was expected to keep himself informed of the state of cultivation of the lands and to exercise oversight over the application of any type of cultivation that might be ordered; to keep in touch with local conditions of labour; to interpose so as to ensure the maintenance of agricultural work in the event of disputes; to assist by advice and suggestions the ordinary work and the new departures of agriculturists; to facilitate the supply of fertilizers, of seeds and of machines and to watch over their employment; to expedite applications on the part of agriculturists for exemptions and for grants of leave; to overlook those exempted and men on leave in their occupations; to watch the employment of prisoners of war in agricultural work; to exercise functions in connection with the requisitioning of horses or cattle, machines and moveables for agricultural work; to give information on the best means for rendering cultivation intensive; to ensure in every possible way the carrying out of the arrangements laid down for the agricultural mobilization.

Thus a network existed of competent persons who even in the more remote agricultural zones were kept informed of the situation; noted and communicated to the Government the deficiency and the requirements of local

(1) Lieutenantcy Decree of 2 May 1918 No 618, delegating to the Central Committee the consultative function in relation to everything bearing on the agricultural mobilization and fixing the attributions of the provincial agricultural commissioner, and of the communal or intercommunal commissioners. *Gazzetta Ufficiale del Regno d'Italia*, No. 113. Rome, 14 May 1918.

agriculture, while giving to the means whereby these requirements might be met the closest study and the most effective support: passed on without delay to the mass of agriculturists the information, the measures, the practical assistance furnished by the Government; and generally prepared the ground for the reception and putting into practice of the instructions issued relating to the carrying on of agriculture.

As to the results obtained, it may be said that the provincial, communal and inter-communal agricultural commissioners rendered for the most part constant and unremitting service, and that, when well chosen and wisely directed, they were invaluable, since, notwithstanding the difficulties incident on the war, they succeeded in inspiring the agriculturists with a feeling of confidence and a power of resistance, and in pushing production well above its normal level, in full correspondence with the aims and object of the decree.

To complete the account of the measures adopted by the Italian Government during the war to ensure to agriculture the necessary supply of labour, mention may be made of the attempt made by the special Department attached to the Ministry to utilize the peasant refugees from Venetia whether in the interests of agricultural production or with the object of preventing the permanent diversion of this labour supply from the rural districts; for various reasons however only modest results were obtained. The department also took charge of the wounded of the agricultural or peasant class. These did in fact constitute a labour supply, diminished in effectiveness but not lost, in that suitable and well directed treatment could restore it to practically normal conditions. As early as 1916 a commission was called together under the auspices of the Ministry of Agriculture, consisting of both experts and politicians, and by a large majority the resolution was carried that the wounded of agricultural classes, except those who no longer required daily surgical attention, should be placed in schools of occupational re-education, attached to agricultural institutes of some kind or other. The institutes called upon declared themselves ready to assist all such initiative in every way, and thus arose schools for the wounded of this class that produced excellent results.

The remedying of the shortage of labour in rural districts was always kept in view and it was with this object that the Ministry of Agriculture was further authorized (1) to take steps to make grants of machinery to agriculturists or to associations of agriculturists, on terms of deferred payment. About 8000 tractors were placed at the disposal of the farms and

(1) Lieutenantcy Decree 14 July 1918, No. 1057, which authorized the Minister of Agriculture to grant on deferred payment to agriculturists or their associations, "tractors" and agricultural machinery in general. *Gazzetta Ufficiale del Regno d'Italia*, No. 187. Rome, 8 August 1918.

tens of thousands of hectares were by these means broken up and cultivated. By the Decrees of 18 February 1917, No. 303, and 3 March 1917, prizes and grants for the purchase of apparatus for agricultural purposes were also given, while in August 1917 the State motor plough service was instituted to facilitate by a wide distribution of motor ploughs the working and cultivation of lands.

In conclusion when it is remembered that this enormous withdrawal of workers from agriculture was a thing not merely unforeseen but never believed possible over so long a period, when account too is taken of the inexperience of organizations hastily formed to meet the emergency and also of the ever-recurring difficulties in their practical working, it may be affirmed that the grave problem of the agricultural labour supply in war-time was, thanks to the many and varied measures above examined, successfully solved in Italy.

G. C.

MISCELLANEOUS INFORMATION RELATING TO THE CONDITIONS OF THE AGRICULTURAL CLASSES.

BELGIUM.

NEW TYPES OF LETTING AGREEMENTS. — DELOS (Alb.): La situation de l'agriculture belge, in the *Journal de la Société Centrale d'Agriculture de Belgique*. Brussels, November, 1921.

The instability of the economic situation, the difficulty of determining the respective shares of the landowner and the tenant farmer in production, have brought about in different quarters the adoption of a variable payment for the use of the land, that is to say, the adoption of letting agreements with a sliding scale of rent.

M. Alb. Delos, professor at the State Institute of Agronomy, at Gembloux, has recently made a study of the types of these. Following him we may indicate the bases of some of these contracts.

A. — In the first place we find a sort of disguised payment in kind, based simply on the selling price of certain characteristic products. Let us suppose that the initial rent has been fixed at 150 francs the hectare. This money value is translated into a certain quantity of each of the chief products. For example, as follows:

These 150 francs rent per hectare represent in 1919-20:	{	100 kg. of wheat at 50 fr.	50 fr.
		5 kg. of butter at 10 fr.	50 fr.
		10 kg. of meat (live-weight) at 5 fr.	50 fr.
			<hr/> 150 fr.

Each year the same quantity of products forms the base, but the variations in their prices may modify the rent charge.

In 1920-21	{	100 kg. of wheat at 80 fr.	80 fr.
		5 kg. of butter at 12 fr.	60 fr.
		10 kg. of meat (live-weight) at 4 fr. . . .	40 fr.
			<u>180 fr.</u>

The disadvantage of this system is that it only takes into account the selling price of the products, independently of their net cost. The elements in production — labour, purchase of fertilizers and feeding stuffs, price of live stock, etc., — are always factors of considerable importance, often exceeding that of the selling price, in the making up of the profit and loss account.

B. — Another system takes into account a fixed rent as a basis, and provides for certain "special factors", namely:

1. The returns obtained on a fixed quantity of produce selected in accordance with regional conditions and the cultivation undertaken, proportionately to the importance of these products in the general working of the farm;

2. Typical items in the expenditure, selected, both as to kind and amount, from among the expenses bulking most largely in the fixing of net cost, in the district under consideration:

3. The application to these items of the prices ruling in each agricultural year.

Let us consider for example the renewal of the letting of a farm let in 1908 for nine years at 150 francs per hectare. The parties are in agreement on this price and decide to arrange for a lease on an sliding scale based on the following amounts and products calculated on the current prices:

150 kg. of wheat	at 20 fr. =	30 fr.
150 kg. of oats	at 20 fr. =	30 fr.
150 kg. of winter barley	at 30 fr. =	45 fr.
100 kg. of live stock	at 1 fr. =	100 fr.
50 kg. of butter	at 3 fr. =	<u>150 fr.</u>
Total . . .		355 fr.

The difference between this total of 355 francs and the rent of 150 francs as agreed between the parties is 205 francs.

It is then a question of fixing, both in kind and in amount, the typical items in the expenditure the total of which corresponds to this difference of 205 francs: say, in 1914:

400 kg. of nitrate of soda	at 22 fr. =	88 fr.
50 kg. of cattle for fattening	at 0.85 fr. =	42 »
100 kg. of oil-cake	at 20 fr. =	20 »
18 days' labour	at 3 fr. =	<u>54 »</u>
Total . . .		204 fr.

In 1919, the rent per hectare based on the said agreement will be subject to an increase according to the following figures:

Let us first assume that the average prices for that financial year, calculated according to the market prices reported on the dates fixed, are: wheat, 50 francs (controlled price in 1919): oats, 80 francs; winter barley 100 francs; live stock, 3.50 fr.; butter, 10 francs the kilogramme. The tables in comparison with 1914 will become:

1. In respect to special factors of the receipts, in kind and in weight:

150 kg. of wheat	at 50 fr. =	75 fr.
150 kg. of oats	at 80 fr. =	120 »
150 kg. of winter barley	at 100 fr. =	150 »
100 kg. of cattle on foot	at 3.50 fr. =	350 »
50 kg. of butter	at 10 fr. =	500 »
Total . . .		1195 fr.

2. In respect to the outgoings:

400 kg. of nitrate of soda	at 120 fr. =	480 fr.
50 kg. of store cattle	at 3.20 fr. =	160 »
100 kg. of oil cake	at 100 fr. =	100 »
18 days' wages	at 15 fr. =	270 »
Total . . .		1010 fr.

The rent per hectare, in 1919, will be 1195 less 1010 = 185 francs per hectare.

M. Delos observes that this method, undoubtedly far from perfect and still empirical, constitutes a step in advance on the former method. It can be applied with comparative simplicity, an important point, for it will never be possible to go into the daily routine of complicated arrangements which require management supervision. The value of the method moreover is conditional on the choice of the "typical factors," a choice that must be made with discernment, and must be in accord with the economic circumstances of the farm.

C. — Finally we come to profit-sharing leases. In order to make the working of these intelligible, M. Delos takes as example a farm at Hesbaye, worked on business lines, of average fertility, comprising 63 hectares of main crops, and 10 hectares of grass land and clovers, and proceeds to consider the application of the system to the year 1921.

The following calculations have to be made in succession:

1. Principal crops serving as base:

Wheat . . . . .	|	63 hectares
Winter barley		
Oats		
Sugar beet		
Grass and forage crops		10 hectares

2. Base price or fixed rent: 150 francs per hectare.

3. Multiples as agreed by contract, including: Once the fixed rent, first return to landlord. Twice the fixed rent, first return to tenant. Eight times the fixed rent, outlay on cereal cultivation. Eleven times the fixed rent, outlay on beetroot cultivation (1). Making 11 for the cereals, and 14 for the beetroot.

4. Average yield per hectare, as determined at the time of the contract:

5. Average official prices, as determined at fixed periods, in accordance with the official reports:

Wheat	28 quintals	60 frs.
Oats	30 »	62 »
Winter Barley	32 »	60 »
Beetroot	26 tons	100 »

6. Calculation of excess profits.

(a) Wheat 28×60	1680 frs.
Outlay and remuneration of capital (11×150)	1650 »
Difference	30 frs.

(b) Oats 30×62	1860 frs.
Outlay and remuneration of capital (11×150)	1650 »
Difference	210 frs.

(c) Winter barley 32×60	1920 frs.
Outlay and remuneration of capital (11×150)	1650 »
Difference	270 frs.

(d) Sugar beet 26×100	2600 frs.
Outlay and remuneration of capital (14×150)	2100 »
Difference	500 frs.

7. Sums admitting of apportionment per hectare.

Wheat	30 frs.
Oats	210 »
Winter Barley	270 »
Sugar beet	500 »
	1010 frs.

8. Apportionment: One-third to the owner on 4 hectares = $\frac{1010}{3} =$

336 francs. On the hectare $\frac{336}{4}$ francs = 84 francs.

Rent $150 + 84 = 234$ francs per hectare.

The excess of the yield over that specified in the contract goes to the tenant: the latter thus has an inducement to produce up to the maximum. This is also an advantage to the landlord, in that he sees his lands properly manured.

(1) The two last coefficients are subject to revision every three years. This revision is provided for in the contract, and entrusted to experts nominated at the time of the signing of the agreement.

The examination of the several types of leases on a sliding scale of rent leads M. Delos to formulate three general principles:

1. Lease on a sliding scale of rent does not obviate the fundamental necessity for fixing a figure as the basis of the charge per hectare. That is the fixed part of the rent, to which is added an extra variable payment acting as an index regulator. The fixed part of the rent must itself be the reflection of the general economic situation, not distorted by over estimates by either party to the contract. Its equitable basis is the net cost of farm-produce.

2. This initial rent being fixed with regard to an equitable apportionment of interests, the next point is to add the variable return, that is to say, to pool the total profits or losses made by the tenant in the course of his lease. In order to decide whether there has really been a loss or a profit, it is well to compare the net cost of each of the farm products with its selling price.

3. The third principle relates to the kind of farm products that should be taken as bases, according to the proportion of which the pool must be worked. It is important not to rely, as was done in the first experiments, on one or two products, such as wheat or beetroot, but on all the products of the holdings.

M. B.

HUNGARY.

REGULATION OF AGRICULTURAL LABOURERS' WAGES. — *Ämtliche Nachrichten des Oesterr. Bundesministeriums für Soziale Verwaltung*, No. 24. Vienna, 31 December 1921.

A Decree dated 24 February 1921, published under the law which conferred full powers on the executive during the War, lays down that the wages of agricultural labourers must be fixed in accordance with the results of the harvest and the threshing by free consent of both parties. If no agreement can be come to, and work presses, the principal official of the district is empowered to fix the wages for the different kinds of work and for the different seasons for the period of a year. The regulation of wages may be made for whole districts or for single localities. Before the fixing of the wages three representatives of the employers and three of the men must be heard. The wages when fixed are binding on both parties. Infringements are punishable with imprisonment or fine.

LAND SYSTEMS

MISCELLANEOUS INFORMATION RELATING TO LAND SYSTEMS.

LITHUANIA.

LAND REFORM LEGISLATION. — *Neue Zürcher Zeitung*, No. 304. Zurich, 7 March 1922.

On 15 February the Constituent Assembly of Lithuania finally passed after the third reading the bill for land reform. According to this law the maximum extent to be retained by landholders is fixed at 80 hectares. All held in excess of that is requisitioned by the State and added to the State lands. So long, however, as the large estates are not yet divided up, farms of not more than 150 hectares will remain untouched. Compensation is fixed for expropriated land within a maximum limit of 480 marks per hectare. No compensation is payable: (1) if the land in question is assigned to officers under a special law; (2) if the soil is unproductive; (3) if the land is not being properly managed; (4) if the property in question belongs to persons who have acted in a manner prejudicial to the independence of Lithuania and have voluntarily placed their services at the disposal of an enemy country.

For the time being the law is not applicable to foreigners (*i. e.* persons who formerly under the Russian rule possessed lands in Russia and were then regarded as foreigners). They are allowed to realize their property within three years. If this is not done their goods will be disposed of in accordance with the general provisions of the law. Land not properly managed will be requisitioned even in the case of foreigners.

M. T.

RHODESIA (BRITISH COLONY).

OWNERSHIP AND MARKET PRICE OF LAND IN SOUTHERN RHODESIA. — *Rhodesia Agricultural Journal*, Salisbury, June 1921.

In a Memorandum on the Cattle Industry of Southern Rhodesia, published in the *Rhodesia Agricultural Journal* of June 1921, there appears a detailed tabular statement, specially prepared for the Memorandum, showing the ownership of land in Southern Rhodesia. Of this statement the following table is a summary:

Southern Rhodesia: Ownership of Land.
(Approximately as at 1 January 1921).

	Matabeleland	Mashonaland	Total	%
	(acres)	(acres)	(acres)	.
Total area	45,750,400	52,327,920	98,078,320	
Area unalienated.	25,081,049	20,220,124	45,301,173	46.19
Native reserves .	6,833,575	12,626,221	19,459,796	19.84
Privately owned land				
Area used for general farming .	2,233,192	4,832,608	7,066,100	7.21
Area used for cattle raising	4,561,389	7,227,488	11,788,877	12.02
Area unoccupied. . .	6,336,984	6,417,334	12,754,318	13.00
Alienated land unsurveyed	654,291	898,715	1,553,006	1.58
Area of townships and commonages	49,620	105,430	155,050	.16

From this table it appears that of the entire territory 46 per cent. is still unalienated; such land, according to a recent decision of the House of Lords, is regarded as Crown land. Approximately 20 per cent. is set aside definitely and in perpetuity as native reserves. A small fraction, .16 per cent., is assigned to townships. The remainder, about 33 per cent., is privately held by Europeans for farming purposes. This latter area, amounting in all to 33,162,300 acres, has been further classified, and it is found that 57 per cent. is actually in occupation, about 4.6 per cent. is unsurveyed land in course of transfer, and the rest, over 38 per cent., is held by absentee owners, both companies and individuals. Of late a tendency has been shown in some quarters to realize the unearned increment in value of idle and vacant land, and these areas are likely soon to pass into the hands of those who will beneficially occupy them.

The market price of land in Southern Rhodesia has constantly advanced, and of late more rapidly. The figures given below cannot be regarded as fixed, and are likely soon to be exceeded. Ranching land sold in large blocks, essentially pastoral country not at present adapted for smaller subdivision, is generally procurable at from 5s. to 10s. per acre; however, instances are quoted of ranching blocks offered at 3s. and 4s. per acre, and other land, also pastoral and not described as suitable for cultivation, at 12s. 6d. up to 20s. and 25s. per acre. Land suitable for arable farming, with possibly some improvements or special advantages, costs today from 20s. to 60s per acre, and in some cases as high as £5 has been paid. In the case of developed farms the value of homesteads, fencing, orchards, etc. must be taken into consideration. Taking the sand veld as a whole, examination of current prices shows a large range of from 5s. to 15s. per acre. For corresponding farms on the red soils the limits are from 10s. to £5 per acre, most varying between 15s. and £1.

RUSSIA.

THE AGRICULTURAL HOLDINGS OF THE SOVIETS — ЭКОНОМИЧЕСКАЯ ЖИЗНЬ
(*Economic Life*), Nos. 25 and 46. Moscow, 2 and 26 February 1922.

According to the original programme of 1918, all large estate privately owned and cultivated intensively, also all experimental stations, had to be regarded as Soviet agricultural holdings (*sowchosi*). But in process of time there were also added to the *sowchosi* many other private estates of which the peasants had not as yet taken possession. In November 1921, according to a statistical note of the Commissariat of Agriculture there existed in 41 governments of European Russia 24,391 *sowchosi*, with an area of 2,124,000 desiatines: in Siberia and in the contiguous zones 906 *sowchosi*, while the *sowchosi* of the Ukraine amounted to more than one million desiatines. The average extent of a *sowchosi* is calculated at 377 desiatines with an average of 45 labourers. The yield of the Soviet holdings has been up to now about half of what it might have been on a up to date system of cultivation and apart from the disastrous effects of civil war. The *sowchosi* system is as a matter of fact undergoing reorganization, and about 1,200 holdings with an area of 800,000 desiatines have been selected for a technical experiment in changing the system of cultivation.

M. T.

THE INTERNATIONAL INSTITUTE OF AGRICULTURE

ORIGIN OF THE INSTITUTE AND SUMMARY OF THE INTERNATIONAL TREATY

The International Institute of Agriculture was established under the International Treaty of 7 June 1905, which was ratified by forty governments. Twenty-two other governments have since adhered to the Institute,

It is a Government institution in which each country is represented by delegates. The Institute is composed of a General Assembly and a Permanent Committee.

The Institute, always confining its attention to the international aspect of the various questions concerned, shall :

(a) collect, study and publish as promptly as possible, statistical, technical, or economic information concerning farming, vegetable and animal products, trade in agricultural produce, and the prices prevailing in the various markets ;

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(c) indicate the wages paid for farm work ;

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(e) study questions concerning agricultural co-operation, insurance and credit from every point of view ; collect and publish information which might prove of value in the various countries for the organization of agricultural co-operation, insurance and credit ;

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PRINCIPAL WEIGHTS, MEASURES AND MONEY OF THE VARIOUS COUNTRIES AND THEIR BRITISH EQUIVALENTS

1 Cadastral arpent (Hungary)	=	1.42201	acres
1 Centimetre	=	0.393713	inches
1 Cho (60 ken) (Japan)	=	119.30327	yards
1 Crown 100 heller (Austria-Hungary)	=	10 d.	at par
1 Crown (100 öre) (Denmark. Norway. Sweden)	=	15.1 ¹ / ₈ d.	at par
1 Decatine (2 tchervert, (Russia	=	2.69966	acres
1 Dinar, gold (100 para) (Serbia)	=	933/64 d.	at par
1 Dollar, gold (\$) (100 cents) (United States)	=	45.5 ¹ / ₁₆ d.	at par
1 Drachm, gold (100 lepta) (Greece)	=	933/64 d.	at par
1 Egyptian Kantar	=	99.0498	lbs.
1 Feddan Masri (24 Kirat Kamel) (Egypt)	=	1.03805	acres
1 Florin, gold, or Gulden (100 cents) (Netherlands)	=	15.753/64 d.	at par
1 Franc (100 centimes) (France)	=	933/64 d.	at par
1 Gramme	=	0.03527	oz.
1 Hectare	=	2.47109	acres
1 Kilogramme	=	2.2	lbs.
1 Kilometre	=	1093.613	yards
1 Kokou (10 To) (Japan)	=	1.58726	quarts
1 Lei, gold (100 bani) (Rumania)	=	9 ⁸³ / ₆₄ d.	at par
1 Leu (100 stotinki) (Bulgaria)	=	933/64 d.	at par
1 Lira (100 centesimi) (Italy)	=	933/64 d.	at par
1 Litre	=	0.21998	gallons
	=	0.0275	bushels
1 Mark (100 Pfennige) (Germany)	=	11 ³ / ₄ d.	at par
1 Mark (100 penni) (Finland)	=	933/64 d.	at par
1 Metre	=	3.28084	feet
1 Milreis, gold (Brazil)	=	25.26 ¹ / ₆₄ d.	at par
1 Milreis, gold (Portugal)	=	45.5 ¹⁹ / ₆₄ d.	at par
1 Peseta, gold (100 céntimos) (Spain)	=	933/64 d.	at par
1 Peso, gold (100 centavos) (Argentina)	=	35.1137/64 d.	at par
1 Peso, paper (Argentina)	=	15.8 ¹⁵ / ₁₆ d.	at pa
1 Pound, Turkish, gold (100 piastre) (Ottoman Empire)	=	135.0 ¹⁵ / ₆₄ d.	at par
1 Pund (Sweden)	=	0.93712	lbs.
1 Quintal	=	1.96843	cwts.
1 Rouble, gold (100 kopeks) (Russia)	=	25.1 ³ / ₃₂ d.	at par
1 Rupee (16 annas) (British India)	=	² / ₁₀ of £1 (gold)	
1 Talari (20 piastre) (Egypt)	=	45.1 ¹ / ₃₂ d.	at par
1 Verst (Russia)	=	1166.64479	yards
1 Yen, gold 2 fun or 100 sen) (Japan)	=	25.037/64 d.	at par
1 Zentner (Germany)	=	110.23171	lbs.

INTERNATIONAL INSTITUTE OF AGRICULTURE
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Co-operation and Association

GERMANY.

THE CAPITALIZATION OF RURAL CO-OPERATIVE SOCIETIES (1)

by KARL HILDEBRAND

*General Inspector of the Central Agricultural Loan Bank (Raiffeisenbank)
and Lecturer at the Higher School of Commerce of Berlin.*

Before proceeding to discuss the question of the capitalization of rural co-operative societies, we must lay down some fundamental conceptions. The German juridical doctrine recognizes as "Genossenschaften" all independent societies having a corporate existence other than the State and the Communes. To these "Genossenschaften," in the widest sense of the word, belong capitalist companies (of which the share companies are the most important form), co-operative societies based on the real property of the members (*Realgenossenschaften*) and co-operative societies composed of individuals independently of the possession of real property (*Personalgenossenschaften*). The *Realgenossenschaften* are for the most part compulsory associations. A special law regulates the admission of members and the juridical relations of the members to one another and to the association; often, too, the method of conducting the business and the powers of the public authorities to make regulations for the association are determined in advance. In some cases the right of the public authorities to supervise the associations is also contemplated. Amongst the co-operative societies of this kind are the societies for drainage and irrigation. The wish of the individual to belong to the society and to derive benefit from

(1) The question of the capitalization of German co-operative societies has been dealt with at length by the author of this article in his book *DIE FINANZIERUNG EINGETRAGENER GENOSSENSCHAFTEN*, published in Berlin in 1921, under the auspices of the *Vereinigung wissenschaftlicher Verleger*.

it or not has no special importance in these cases. In the interests of the community, the individual for whose advantage the society is formed is compelled to become and to remain a member. And the compulsion reaches such a point that the lands on which the society conducts its operations continue to belong to it even if they change hands, so that the new owner becomes compulsorily a member, while the original owner, when he transfers the property, withdraws from the association.

The "free" co-operative society, on the other hand, does not owe its formation to any compulsion. It cannot be a *Realgenossenschaft* and it is not usually a capitalist company, but is a *Personalgenossenschaft*. The persons who compose it, the members, are its supporters and its object is to serve its members and, in its turn, it is served by the capital, whereas in the commercial company (of which the typical form is the share company) it is the capital which commands. In some special cases a "free" co-operative society is established under the juridical form of a share company, but it usually assumes the form of a co-operative society registered under the Law of 1889 (*Gesetz betreffend die Erwerbs- und Wirtschaftsgenossenschaften*). The registered co-operative society is the form of undertaking adapted to the combination of persons economically weak. It allows such persons to develop a powerful economic action, to utilize the means of capitalistic activity and at the same time protects them against the harm which may result from it. The co-operative society is a potent instrument for individual initiative, it promotes and strengthens in its members the consciousness of their own liability and trains them in independent management. The co-operative society puts self-interest at the service of the community.

In this article we deal only with the free rural co-operative societies, that is the co-operative societies which serve the population of the country districts. Amongst these there are many agricultural co-operative societies which aim exclusively at serving the agriculturist (co-operative dairy societies, co-operative vine-growers' societies, co-operative threshing societies, etc.), but there are others which work in the interests of the rural population as a whole, such, for example, as rural credit societies (loan banks, Raiffeisen societies), co-operative societies for the supply of electricity, etc.

The rural co-operative societies may be divided into two groups — the co-operative credit societies and the so-called co-operative trading societies.

By capitalization must be understood the supply of capital and distinction must be made between the supply of capital for the working of the society itself and the employment of capital in the working of other undertakings.

I. THE SUPPLY OF CAPITAL FOR THE SOCIETIES' OWN WORKING

The capital invested in a co-operative society, as in any other undertaking, may be either "owned" or "borrowed" capital. The owned capital, which consists of the foundation capital (paid up shares) and the

supplementary capital (reserves), is also known as the "undertaker's capital"; it is this capital which bears the risks, serves as the basis of credit (in part), is the guarantee fund for the creditors and is that part of the total capital and total assets which is not burdened with indebtedness. The borrowed capital comprises all the liabilities of the society.

A society may obtain capital for its own working in three ways: it may obtain owned capital, or borrowed capital, or both owned and borrowed capital. It is the last of these methods which is most often recommended.

The simplest and safest method of capitalization is by means of owned capital. The members pay an entrance fee and, either immediately or as soon as the need is felt, pay up the shares, and thus supply all the capital which the society requires. Recently several societies for the supply of electricity have been formed of which the capital has been obtained almost entirely through the entrance fees. Capitalization by means of entrance fees (which are not repaid to the members when they withdraw from the society) is only possible when the societies partake of the character of a society based on real property, when withdrawal takes place on the occasion of the transfer of the property and when at the time of the sale of the property the capital invested in the society in the form of entrance fees is included in the purchase price.

Capitalization with owned capital only is not possible in all cases, and, in particular, it is not possible if the capital required is large, the number of members is small and the members are not in a position to supply the large sums which would be necessary. In this case, borrowed capital must be obtained, which will be gradually repaid as new members join the society or as reserves are built up out of the profits. The creditor has rights over the borrowed capital; he demands interest and even a commission; he requires fixed instalments of repayment or he has the right to demand the repayment of the sum lent on giving notice. Agreements must, therefore, be made with the creditor to protect the society from inconvenient demands for repayment and from the obligation to pay too high annual instalments, so that the society may carry on its work undisturbed and not be threatened or even placed in the impossibility of continuing its existence by the claims and action of the creditor.

Capitalization with borrowed capital only, especially at the time of formation, and the gradual replacing of the borrowed capital by reserves to be built up little by little is forbidden by the Law on Co-operative Societies.

§ 1. OWNED CAPITAL, AND THE METHODS OF OBTAINING IT.

(a) *The Fundamental Legal Principles.*

In the Law on Co-operative Societies the conception of owned capital does not figure; it only speaks of its constituent parts, the foundation capital and the supplementary capital, this latter under the name of "reserve

fund " (*Reservefonds*, § 7, No. 4) or of " other capital " (*sonstige Vermögen*, § 73). The foundation capital is spoken of under the name of " shares " (*Geschäftsanteile*), — nominal value — and of " paid-up shares " (*Geschäftsguthaben*) the effective foundation capital formed by the payments of the members and in certain cases by the assignment of dividends to the paying up of shares. The expression " responsible capital, " (*verantwortliches Kapital*), which has become usual, is not applicable to the owned capital of the society, as it results from the balance sheet. To meet the obligations of the co-operative society not only the owned capital of the society is liable but also the assets of its members (obligation of liability and of making supplementary payments in accordance with § 2 of the Law on Co-operative Societies). The amount of the assets of the members which is so liable is not known and cannot be known with any precision. In the case of co-operative societies with limited liability, it may reach as a maximum the sums which the members have undertaken to pay (§ 139 of the Law on Co-operative Societies), but it cannot readily be ascertained to what extent this amount is realizable. The amount to which the members are liable in the case of societies with unlimited liability or with liability to make unlimited supplementary payments embraces their entire possessions, of which it would be difficult to ascertain either their absolute value or the extent to which they could be realized.

(b) *The Shares and the Payments on them.*

The Law on Co-operative Societies requires (§ 7, No. 2) that in the rules of the society it shall be laid down up to what amount each member may take shares in the society, and what payments must be made on the shares. These obligatory payments must be determined, as regards their amount and the time of making them, up to a total amount of at least a tenth of the shares. If the rules oblige the members to pay more than a tenth of the shares, but do not fix the amount of these additional payments or the time when they are to be made, the decision in these matters rests with the General Meeting (§ 50 of the Law on Co-operative Societies). The members of co-operative societies with limited liability (§ 119) or with liability to make unlimited supplementary payments (§ 126) can only take one share each; in the societies with limited liability, members may take more than one share, if that is permitted by the rules and provided that the number of shares which any one member may hold is fixed (§ 134). However, if a member holds more than one share, all his shares except the last must be covered by payments or by an assignment of dividends (§ 136). The payments made by a member on his share (or shares in the case of societies with limited liability), together with any dividends which may have been assigned to the paying up of shares, or less any losses (§ 19), form the member's credit in respect of the share capital (*Geschäftsguthaben*).

(c) *The Legal Reserve Fund.*

The legislative provisions regarding the formation and employment of the reserve fund are not numerous. In § 7, No. 4, the Law on Co-operative Societies prescribes the formation of a reserve fund having for object "to serve to cover a loss shown by the balance sheet". The rules of the co-operative society must contain provisions relating to the formation of this reserve fund, that is, laying down the method of its formation and, in particular:—

1. The percentage of the net annual profit to be allocated to the reserve fund.

2. The minimum amount which the reserve fund must have reached before the allocation of this percentage of the net profit can be discontinued.

The rules may also lay down that no portion of the profits shall be distributed but that the whole shall be carried to the reserve (§ 20).

Members who withdraw from the society have no claim upon the reserve fund (§ 73).

If when the co-operative society is dissolved the reserve fund, after the creditors have been satisfied, remains available, it can be treated as part of the capital assets of the society.

§ 2. THE ECONOMIC IMPORTANCE OF THE OWNED CAPITAL.

As has been indicated, the owned capital sustains the risk and the credit and serves as a guarantee fund for the creditors. The members contribute the share capital in part by their payments, in part by the allocation of dividends to this purpose and since they are themselves the persons with whom the co-operative society does business, even the profit which serves for building up the reserve fund is at least in part contributed by them.

The members supply the foundation capital not so much in consideration of the dividend which they may hope from it, but in the expectation of being able by means of their membership in the society to promote, improve, complete, render more economical or more lucrative, insure, etc. their own business or domestic affairs. The co-operative society is created not by capital in search of investment, or of speculation, but by the desire of the members to improve their position, economically or technically.

For the conduct of the business the importance of the owned capital consists in the first place in the fact that it does not burden the undertaking with interest and so diminishes the working expenses. When a sufficient sum has been reached, which, it is true, can only be reached after the lapse of a certain time, but which ought eventually to be reached, the owned capital renders the co-operative society independent of its creditors, of the conditions of the money market and of capital, and allows it even to incur losses without the members feeling any ill effects from them.

Not all parts of the owned capital have the same importance for the working of the society. The importance is greater in the case of the various reserves and sums set aside, in respect to which the retiring members have no claims, than in the case of the paid up shares which must be repaid to the retiring members, always supposing that they are not necessary to cover losses.

The desirability that the co-operative society should be financially independent, makes it seem opportune that the value of the shares should be fixed at a fairly high figure, that the payments upon them should be made rapidly and that, in addition, the whole or a large part of the net profits should be carried to the reserve. However there are considerable difficulties in the way of this. In fixing the amount of the shares and of the payments to be made upon them account must be taken of the ability of the members to make such contributions, while the prices charged, upon which the making of a net profit depends, must be fixed in accordance with the state of the market. These difficulties in the way of a rapid accumulation of capital, which result from economic conditions, are increased by psychological factors. It is a curiously widespread idea, profoundly rooted in the minds of many members of co-operative societies, that the co-operative society ought to support its own members, but that it cannot claim any support from them in return. Hence arises that unjustified aversion from the formation of the capital, whether by payments on the shares or by increasing the reserve funds.

In consideration of the fact that, save in exceptional cases, the members join the society to do business through it, it would be desirable that the shares they hold should be proportionate to the extent to which they participate in the business of the society. It is not, however, easy to introduce a constant, fixed relation between the participation in the capital and in the business. It is, indeed, practically impossible and moreover there are legislative provisions which are opposed to it. In the co-operative societies with unlimited liability or with liability to make unlimited supplementary payments, a member cannot acquire more than one share, but must hold one share (§§ 119 and 126); only in the co-operative societies with limited liability is it permitted that the member shall hold more than one share (§ 134), but the diminution of the number of shares subscribed is not allowed. Hence the legislative provisions render it impossible for the member to participate in the capital to an extent varying with his participation in the business, which by its very nature may alter considerably.

Every member must withdraw from his own business or from the free capital which he has at his disposal, or may even have to obtain at first by means of a loan, the money with which to pay for shares in the co-operative society. Hence arises a certain unwillingness, not altogether unjustified, to subscribe capital or a tendency to do so to a less extent than would be effectively possible. When the amount of capital which a member can subscribe is not large, the willingness to subscribe may be increased if high dividends are not only expected but are actually paid. But this

policy of paying high dividends easily leads to the closing of the co-operative society to new members and to its virtual transformation into a profit-making company, even if the change of juridical form does not take place or only takes place later. In many cases co-operative societies are even absorbed by commercial undertakings and that as a result of happenings which are worse than merely non-co-operative.

The willingness of the members to subscribe capital may be encouraged if the co-operative society offers adequate advantages in exchange ; this must be done from the start by means of a clear programme which does not consist merely of empty promises but is economically possible to carry out.

The willingness to subscribe capital depends further on the ability to do so, a factor of great importance amongst the members who are weakest from the point of view of capital. Account was specially taken of the ability to obtain the necessary means by the legislative provision which allows shares to be paid up by instalments. Of this provision free use should be made, but only when it is economically necessary. To allow a partial payment when the complete payment is possible would be a mistake. The argument often put forward against a substantial participation in the capital that the liability serves instead of such participation is not acceptable, either economically or juridically.

When payment by instalments is necessary in consideration of the small capacity of the members to subscribe capital, the amount of the compulsory payment should be fixed at as high a figure as possible — it is in consideration of those who are economically weakest that the amount of the minimum payments is fixed — and the instalments should be fixed at a moderate figure, and they should be made payable by periods which correspond to the ability of the weakest members to subscribe and in general coincide with the periods in which their income is received, for example weekly for workmen, monthly or quarterly for employes and so on.

In the need of the undertaking for capital on the one hand and in the restricted ability of the members to subscribe on the other hand, there is a limit to applying the co-operative principle. If between the need of capital and the ability to subscribe it there exists a gap which cannot be bridged, it will not be possible to adopt the co-operative form, unless in special cases help can be obtained from persons of larger means. This procedure can only be adopted in isolated cases ; it cannot and will not be the basis of a large development of the co-operative idea and tends, even when the juridical form of a registered co-operative society is maintained, rather, in the direction of charity or of institutions of public utility.

If the use of the co-operative form is desirable in the interests of public economy, but impossible owing to the divergence between the need for capital and the financial capacity of the members, State aid, in whatever form it may be applied, may be not only desirable but even necessary.

The right to require the payment of entrance fees is indisputable and in any case they exaggerate who maintain that this practice is contrary to the spirit of co-operation. There is no doubt that the co-operative

society, once formed, has the right to ask from new members the payment of an entrance fee, as a form of compensation, as it were, for the work thanks to which, prior to their admission, the foundations of the society were laid and the society was placed on a solid basis. The entrance fees, as has been noted, may even be considered as a possible financial basis for a co-operative society.

If the entrance fees are fixed at so high a figure that they exceed the ability of the members to pay them, they bar the way to the entrance of new members. This is a provision which may be regarded as the first step in the direction of transforming a co-operative society into a profit making company. It is an illusion, as has been demonstrated in many cases in practice, to believe that high entrance fees prevent the withdrawal of members, since they do not wish to renounce their money. Experience has shown that high entrance fees prevent not the withdrawal but the entrance of members.

The fines exacted from members for breaches of the rules and regulations can never be taken into consideration as a factor of any importance in the building up of the reserve fund; if they were an important factor, it would be an indication of the decadence of the society.

In the same way voluntary contributions only in exceptional cases help largely to increase the reserve fund. In some cases, contributions are received from benefactors, persons who assign a sum to the co-operative society, etc.; in others, the contributions may come from the public authorities (the State, districts, communes, etc.). But even these receipts only rarely are an important factor.

In exceptional cases persons who are not members of the co-operative society contribute otherwise than voluntarily to the reserves, as in the case of penalties decided by arbitration for non-fulfilment of contracts, and similar cases. These contributions, too, cannot have any considerable importance.

From the point of view of private economy and from the co-operative point of view, it might be argued that the object to be aimed at in the constitution of the owned capital is that it should be of such an amount that the reserves can bear the highest possible risk which the society can incur, so that in fact the liability of the members is eliminated. This object is impossible of attainment. A long series of years would have to pass before such large reserves could be accumulated; they would have to be equal not only to the working capital required but, in addition, to the sums for which it had assumed liability in relation to other co-operative societies. Nor would the object aimed at be attained even then, inasmuch as there would still be a risk in the investment of that part of the reserve funds not required as working capital, and it would be necessary to accumulate another reserve fund to cover this risk. It would be fantastic for a society to set before itself such an aim.

Without losing sight of realities and of the actual possibilities of development, it may be said that the owned capital ought to reach such a sum that the co-operative societies can dispense with borrowed capital;

the accumulation of reserves beyond this limit would make it possible to reduce the share capital. Even this object is in opposition to the development of co-operative societies hitherto observed. The application of this conception leads to "foundation capital" (*Stiftungsvermögen*), to the institution of public utility, to the possibility of eliminating the liability of the members, whereas the tendency at the present time is far more likely to be in the direction of the profit-making company. Besides it would be an attempt to decide upon the problems which present themselves regarding questions which must be solved not by the present generation but by future generations. The elaboration of the problems which arise lead, across economic problems, to the co-operative idea as a universal conception.

Raiffeisen's idea of a capital which cannot in any circumstances be distributed amongst the members, called by his followers the "constituent fund" (*Stiftungsfonds*) does not conflict with the present economic organization and has objects capable of being realized. The "constituent fund" should reach such an amount that it will suffice as working capital. This rule has been interpreted as meaning that the constituent fund must be of such an amount that the revenue derived from it (that is the return from its employment) is sufficient to cover the expenses of the society. (Raiffeisen contemplated the "constituent fund" only in the case of rural co-operative credit societies and savings and loan banks, but he desired their development into village co-operative trading societies). The great mass of rural co-operative credit societies are still very far from having attained this object.

Confining ourselves to facts and taking account of the necessarily slow process of building up the owned capital in the case of co-operative societies, we must lay down, as the necessary minimum in respect to owned capital, the following principle: If a co-operative society cannot be financed by means of paid-up share capital and entrance fees, it must obtain from these sources at least such an amount of owned capital as will suffice at the start as "basis for the extent of credit economically justifiable". It will depend on the source of the credit and upon the conditions of granting it, what is the minimum amount of shares necessary and what must be the mutual relations between the shares and the sums for which the society is liable and between the sums for which the society is liable and the estimated capital assets of the members. Carrying on the business with borrowed capital presupposes that the assets are to some extent liquid, and the higher the ratio of the borrowed capital to the total capital the greater the extent to which the assets must be liquid. But these are not the only factors which determine the minimum of owned capital which is necessary. For the estimation of the credit and hence for building up an owned capital, two principal systems are adopted amongst co-operative societies — the system of centralized co-operative societies and the system of societies which are not centralized. These latter have no support except in themselves; they must themselves find access to the money market and stand in direct relations with the third

parties who become their creditors. The centralized co-operative societies on the other hand are combined into central banks which balance the need of capital of some of their members against the surplus capital of others and these societies only occasionally have direct contact with the money market. Co-operative societies which are not affiliated to a central bank are, therefore, compelled to accumulate owned capital to a larger extent than co-operative societies which are so affiliated; in fact, on behalf of these latter it is the central bank, with its own owned capital, with the sums for which it is liable, and with its wide basis of risk, which figures on the money market.

But in the case of centralized societies it is not only the requirements of the money market which determine the safety of the assets and the extent to which they must be liquid (the two factors which, in the first instance, render owned capital necessary); they are even more strongly influenced by the internal sources of capital of the co-operative organization itself and the extent to which the assets must be liquid in the interests of those sources.

The principal source from which the capital of the German co-operative organizations is derived is the savings deposited with the co-operative credit societies affiliated to them. The proportion of liquid assets which has to be insisted on in the interests of the depositors is the decisive factor in determining the minimum amount of owned capital which a co-operative society belonging to the organization in question must possess.

That the owned capital of the co-operative societies should be very small at the start and should subsequently increase little by little is due to the economic conditions of the members. Thousands of small traders, manufacturers or farmers work with a very small capital of their own and sometimes with excessive indebtedness. They have however a reason for existence and overcome their indebtedness in so far as their activity is based not on the possession of capital but upon their own labour; they transform the financial results of labour into capital and in their co-operative societies they find help and an assured existence. It can readily be understood that co-operative societies, the members of which are drawn from the same social classes, can only put together capital slowly and that only co-operative societies which have been in existence for some time can accumulate capital with any rapidity.

§ 3. BORROWED CAPITAL AND THE MEANS OF OBTAINING IT.

All economic development, whether of the individual, of the communes or of the State has rendered necessary the organization of credit. The individual's need of credit has given rise to the formation of co-operative credit societies. The impossibility for the manual worker, for the farmer or for the retail trader to develop his business without capital and without credit, urges him towards co-operation, makes him realize its necessity, almost compels him to combine co-operatively. The co-operative society, in turn, has need of capital. What the member cannot give as capital he

furnishes in the form of credit. The credit of the individual, of the man of modest means, though not appreciated by investors or on the money market, gives to the co-operative society the basis on which to obtain borrowed capital. The credit of the co-operative society is formed by the combined credit of the individual members ; it is not the sum of the small individual credits, but rather their multiple. But credit alone does not represent any permanent financial basis, and it is precisely this fact which for a long time has been imperfectly understood by many co-operative organizations. Credit must be accompanied by owned capital, to a small extent at first but increasing little by little until it reaches such an amount that the co-operative society, though closely linked with the money market, becomes independent of it within the limits rendered possible and advisable by its business, its aims and its means. The co-operative society must be able to enter the money market on an equality with all the other lenders or borrowers of money and this it can only do if it does not confine itself to merely linking itself with a co-operative organization of a higher degree but itself possesses capital.

Co-operation is formed by persons, not by money, not by capital. The credit which persons are in a position to guarantee is, as has been remarked, the basis on which the credit of the co-operative society rests. It has recourse primarily to personal credit and only in special cases to credit based on real property.

(a) *Personal Credit*

The greater part of the borrowed capital employed by rural co-operative societies is obtained by means of personal credit. The most important forms of personal credit are the savings deposits and the so-called *Haftsummenkredit* (credit consisting of the sums for which the members can make themselves effectively liable). Deposits on current account are not a frequent source of credit, nor is credit on the security of bills. The deposits of public funds are few in number, as also are loans from the State and *Zwischenkredite*. Credit allowed on goods purchased is important only in the case of co-operative trading societies.

The *savings deposits* of the co-operative credit societies are the principal source of capital for the whole of rural co-operation in Germany. They must at the present time amount to six or seven thousand millions of marks. In round figures there are 19,500 loan banks which act as savings banks, having assumed the task of encouraging the sense of thrift amongst the rural population, more particularly amongst young people, servants and workers. Many small savings institutions serve the same end, such as the *Pfennigsparkassen*, the school savings banks, home money boxes, savings-books for baptism, etc. A characteristic quality of these savings deposits, which is of great importance in relation to the capitalization of the rural co-operative societies is their comparative stability. While the deposits in the banks vary considerably and therefore require a large amount of liquid assets to meet withdrawals, the savings

deposits in the co-operative societies vary little and the withdrawals have been more than counterbalanced by new deposits which are continually flowing in, so that the aggregate deposits in hand have increased from year to year. The stability of the deposits is explained by the fact that the greater number of the depositors make their savings with a definite purpose (to give dowries to their daughters or to purchase land) which they may only be able to carry out after a long period of time. The interest, too, is not withdrawn, but is added to the capital. Temporary deposits are also made (deposits on current account) and they have notably increased in recent years, but it would be well if they increased still further, in view of the desirability of extending the system of payments without any cash actually passing.

The *Haftsummenkredit* holds a special position amongst the various means of obtaining borrowed capital. It is a speciality of the co-operative credit system, was conceived by Raiffeisen, the founder of rural co-operation, and was afterwards developed by the *Preussische Zentral-Genossenschaftskasse*. The fundamental conception of this system of credit is as follows: The co-operative societies (for the most part co-operative credit societies in South and West Germany) with which has been deposited more money than they require for their working, place their surplus capital in their central banks (of which we shall speak later), which employ it in granting credit to the co-operative societies which have need of capital. Since societies which have need of credit generally have little owned capital, this cannot serve as the security for any large loan. A particularly ingenious method is adopted for ascertaining the sums (*Haftsummen*) for which the members of a society would be liable in respect of the obligations assumed by them in case of the liquidation of the society, an estimate is made of the amount which could be recovered from them and the credit is fixed accordingly. This system has proved satisfactory for more than forty years in the German co-operative movement, particularly amongst the rural co-operative societies and has contributed in a notable manner to the powerful development of co-operation.

Credit in the form of overdrafts on current accounts is not usual. In isolated cases it is given by banks to the great central co-operative societies. Credit on the security of bills, too, has no great importance, since the great mass of German farmers is not accustomed to have recourse to it. The investment of public funds (funds belonging to communes, to public institutions, etc.) in the co-operative societies only occurs to a very small extent, since such investments are not considered suitable for trust funds, and public funds must as a rule be invested in the same type of securities as trust funds. Occasionally even the States or Provinces give credit to co-operative societies, particularly to trading societies, but such advances are non generally large in amount. Only in a few cases, in which there are special reasons, can such advances be really considered as the provision of capital, as for example, in the case of the formation of co-operative grain warehouses in the last decade of the nineteenth century, and in Bavaria when the growers of fruit-trees of Effeltrich (near Nuremberg and Erlangen)

had their business threatened by the legislative prohibition to sell young fruit trees on their own premises and were compelled to combine in a co-operative society for the cultivation of fruit trees in order to establish a nursery on modern lines. Temporary credit (*Zwischenkredite*) is granted by the *Preussische Zentral-Genossenschaftskasse* to co-operative societies when a mortgage loan has been granted to them by a mortgage credit institution, but the issue of the loan is delayed by the necessity of first completing the formalities connected with the registration of the mortgage in the Land Register or because it is necessary to await a favourable moment for the sale of the mortgage bonds. Credit is in a few cases allowed on goods purchased. The central trading societies allow it to the local trading societies. When money is scarce the local societies must give bills to the central societies in order that these latter may obtain money by discounting them.

(b) *Credit on the Security of Property.*

Mortgage credit has no great importance as a source of capital for rural co-operative societies. The mortgage banks only make small advances on the security of buildings erected for specific purposes (co-operative dairies, distilleries), so that the *Haftsummenkredit* must usually suffice for the purposes of obtaining capital. Moreover the mortgage credit institutions only make loans to agricultural co-operative societies when they have buildings which serve for carrying on their business. This principle is harmful to the co-operative grazing societies, which do not usually possess buildings and, therefore, have difficulty in obtaining capital. If the co-operative credit societies grant loans, with special guarantees, to farmers who are heavily indebted for the purpose of enabling them to pay off their mortgages, they can, when money is scarce or in special circumstances, hand over their rights to the Prussian Central Co-operative Bank and thus render liquid, in case of need, the capital invested. The deposit of securities has little importance as a means of obtaining credit. The amount of the securities held is not great; during the War it increased somewhat, but it is already again diminishing. The smallness of the amount of the securities held is explained by the fact that the societies have been urged for decades by their central banks and their federations to deposit their surplus funds in the central banks rather than invest them in securities. The pledging of goods only occurs exceptionally; for example the co-operative grain warehouses, the co-operative vine-growers' societies, etc., may obtain credit by this method during the period when they are making their purchases of produce. Even the handing over of rights as a security for credit rarely occurs and then generally in connection with loans for dismortgaging.

II. THE SUPPLY OF CAPITAL TO OTHER CO-OPERATIVE SOCIETIES.

In the supply of capital by a co-operative organization to other co-operative societies, all the suppliers of credit to that organization partici-

pate. However they do not in all cases give credit with the intention of supplying the societies with capital, but rather seek a temporary or permanent investment of their own capital. As soon as the capital becomes necessary for other purposes or can be invested on more favourable conditions elsewhere it is withdrawn. The danger that borrowed capital may be withdrawn causes the debtor to feel an anxiety, a want of security, and a continual uncertainty ; it renders necessary the formation of liquid reserves which diminish the returns of the undertaking ; it makes desirable the increase of the owned capital which depends both on the ability and willingness of the members to subscribe and on the returns of the undertaking (building up of reserves) ; it renders it advisable to grant particularly favourable terms to creditors who made advances for long periods ; it compels the debtor to seek a cover (*Rückendeckung*) ; it eliminates recourse to the State and leads to mutuality, that is to the union of those who find themselves in the same or similar circumstances.

The money market has been for a long time closed to the co-operative societies. The *Reichsbank* for a time discounted the bills of the co-operative societies, but after the formation of the Prussian Bank it handed over to it the operations of this kind. The Banks decided only after many years to grant credit on the security of bills to co-operative societies and to discount their paper. The public saving banks first ignored the co-operative societies and then fought them.

This unwillingness on all sides to give them credit compelled the co-operative societies to seek aid amongst themselves. From Schultze-De-litsch to Raiffeisen they learnt the necessity of finding on their own account the means of access to the money market, and created their own central banks ; subsequently the State came to their aid and finally even the great Banks entered into business relations with them. But in regard to the supply of capital for investment they depend, now as they always did, essentially on their own means.

The compensation between the surplus and the deficiency of money in the co-operative movement is carried out principally through the medium of the central banks created by the co-operative societies themselves. In the initial period of their formation, the object aimed at was to establish a compensation between the co-operative credit societies having a surplus of money and those which had not sufficient money. The latter originally found no one on the money market who would give them credit ; the former could find no lucrative investment. Hence the idea of union between them arose very naturally. It was carried out both by Schultze and by Raiffeisen. After some fruitless attempts to establish a centre of financial compensation in the form of a co-operative society, Raiffeisen established one in 1876 in the form of a share company, under the name of the Central Agricultural Loan Bank for Germany (*Landwirtschaftliche Zentraldarlehenskasse für Deutschland*), of which the savings and loan banks formed on his system can alone become shareholders and must become shareholders if they desire to obtain advances from it. The shares are held in the name of the shareholders and the dividends cannot

exceed 5 per cent. ; one fifth of the net profit is allocated to the indivisible and divisible reserve funds.

The federations affiliated to the National Federation, with two exceptions, formed after the promulgation of the new Law on Co-operative Societies (1889) central banks for their area of operations under the form of co-operative societies with limited liability of which the co-operative societies which deposit money or obtain advances become members. The attempt to amalgamate these co-operative banks into a *Reichsgenossenschaftsbank* were not successful

It has been already noted that in the initial period of the formation of central banks the object aimed at was to effect the compensation between those co-operative credit societies which had a surplus of money and those which had need of money. Then at any rate and even now on the part of many members of co-operative societies, the scope of the central banks was conceived as being this and nothing else. It was only gradually that experience showed that the problem of financial compensation was a problem not only of space but also of time and of quantity. It is not only the surplus and deficiency of money which has to be balanced (problem of space) but also the need of a temporary investment with that of credit for long terms (problem of time) and, lastly, there must be the balancing of the differences, that is satisfaction must be given both to the offers and demands even when they do not balance each other, that is when the offers exceed the demands or *vice versa* (problem of quantity). The compensation centres must be financiers and bankers. To this may be added that the task of being helpful and the fact that they cannot pursue any selfish end have rendered more acute in the case of the central banks the conflict which exists in all undertakings between safety, profitable employment and the necessity of having liquid assets. Experience in overcoming these difficulties was wanting, since the financial compensation centres were, as regards their objects, their organization and their management something absolutely new and their managers, as well as their councils of supervision, in early days often refused to avail themselves even of the experience of modern banking practice, fearing that it would lead them into taking up an attitude similar to that of profit-making companies.

The special difficulties of financial compensation in connection with co-operation and the obstacles which it encountered because these difficulties were not at first realized, were not, however, such as to render impossible a healthy development of the co-operative societies. Notwithstanding difficulties and obstacles and in spite of the want of success which occasionally occurred, it is unquestionable that without the central banks, the co-operative organization of farmers and artisans could not have had the development it has attained and that without centralized organization in the field of financial economy, the local societies would have been condemned, both in regard to their number and to the services they could render, to a miserable existence.

The co-operative societies belonging to the General Federation of German Raiffeisen Co-operative Societies (founded in 1877 by Raiffeisen) have

as their financial compensation centre the Agricultural Central Loan Bank for Germany founded by Raiffeisen in 1876. Its operations cover the whole of Germany, its headquarters are at Berlin and it has 14 branches and 30 agencies scattered over the whole country. The co-operative societies affiliated to the National Federation of German Agricultural Co-operative Societies do not possess a central bank, but each federation has its own bank. Each of the 28 federations, as also each of the central banks attached to them, confines its operations to one of the provinces of Prussia or to one of the States of the Confederation. The co-operative societies affiliated to the National Federation are therefore organized on a system of provincial centralization, while those affiliated to the Raiffeisen Federation are centralized on a national scale. However, even the co-operative societies belonging to the National Federation have a central organization for the whole country in the *Preussische Zentral-Genossenschaftskasse*. This institution is not a co-operative society, but a State institution which acts as the central bank of the central banks.

The central banks, inasmuch as they are financial compensation centres are also institutions for supplying capital to co-operative societies which have need of it.

III. THE RELATIONS BETWEEN THE SUPPLY AND THE EMPLOYMENT OF CAPITAL.

In the supply of owned capital the capacity to subscribe and the willingness of the members to contribute have decisive importance on the one hand (payments on shares) and the profitability of the undertaking and the recognition of the necessity of developing the owned capital on the other hand (reserves). In the supply of borrowed capital, on the contrary, the factors which decide the nature of the capital and the period for which it must be borrowed are the rules and customs of the money market, the estimate which the person who lends capital forms of the credit-worthiness of the borrowing society, the guarantees which it can give, and its promptness and willingness to pay what is due.

In the employment of capital, setting aside the questions of the good organization and good management of the undertaking, the decisive factor is the need which the undertaking has of capital, and the period during which the capital circulates forms the link between the obtaining and the employment of the capital.

In the case of borrowed capital there is a marked conflict of interests between the giver and the receiver of credit, a conflict which finds its solution in the conclusion of the credit agreement. The desire on the part of the creditor for a good return on his money, in so far as it is satisfied, diminishes the return of the borrower's undertaking. The wish of the creditor that his money should be safe limits more or less the debtor's faculty of disposing freely of it, and the necessity of being in a position to pay the debt has an influence on the employment of the capital and on the method of disposing of the money.

The circumstances above indicated are not fundamentally modified in any way, if the credit is granted by an institution of public utility or a co-operative society composed of the co-operative societies themselves (centre of financial compensation). The difference only shows itself slowly in regard to the pretension to return on the money lent, since such institutions do not exist for purposes of gain like the profit-making companies and can therefore put credit more cheaply at the disposal of the co-operative societies. But inasmuch as they are handling for the most part borrowed capital, even the financial compensation centres cannot reduce their requirements in the matter of security and the necessity of keeping liquid assets below those of the profit-making companies, and if in regard to security they act in accordance with the particular conditions of the co-operative societies (credit proportionate to the sums for which the members can make themselves liable), they must, however, take care that the existing guarantees are not otherwise employed and that they cannot serve for the satisfaction of the claims of other creditors (declaration that the guarantees serve exclusively as security for the loans granted). Often the creditor leaves it to the debtor to see that he has sufficient liquid assets, for the very good reason that neglect in this matter would threaten the very existence of the debtor (insolvency and its consequences). However, in view of the fact that particularly in the case of the co-operative societies with a central organization the rules for keeping a sufficiency of liquid assets are too easily overlooked, the co-operative federations have in their decisions laid down principles to be followed, and have issued orders and circulars and have given instructions to their Inspectors that on the occasion of their inspections they should give special attention to the position of the liquid assets of the co-operative societies.

From the external life of the undertaking, from its relations with its creditors, may be judged the influence of the supply of capital on its internal life, on the employment of the capital, on the profits of the undertaking, on the constitution of guarantees and on the building up of the necessary solvency.

Thanks to the internal relations which have been created between the co-operative credit societies and the co-operative trading societies, it has been possible to establish a solid and efficient credit system, standing upon its own basis, for rural co-operative societies. For the Raiffeisen co-operative societies, the *Landwirtschaftliche Zentral-Darlehenskasse für Deutschland*, also called the Raiffeisen Bank, provides access to the money market. The majority of the other central banks avail themselves for this purpose of State-aid through the medium of the *Preussische Zentral-Genossenschaftskasse*.

MISCELLANEOUS INFORMATION RELATING TO CO-OPERATION AND ASSOCIATION.

FRANCE

I. THE GENERAL CONFEDERATION OF VINE-GROWERS. — VERAN (Jules): Nos enquêtes: La confédération générale des vignerons, in *Le Producteur*, Paris, April-May 1922.

The General Confederation of Vine-growers originated in 1907 in the economic crisis sustained by four large wine-producing departments, l'Hérault, Aude, Gard, and the Eastern Pyrenees. This part of the South, except for a few districts, is devoted in consequence of the lack of water to a single culture, that of the vine. Now the wine produced came to be sold at two francs a hectolitre, on account of adulteration practised on a large scale in two ways: dilution and sugaring. By dilution, that is to say addition of water, the number of hectolitres for consumption is increased; by the mixture of a certain amount of sugar, at a very low cost, with the must in fermentation, the alcohol content was increased, and thus more dilution was possible, and, further, with sugar and raisins artificial wine could be made at will.

It was to combat this state of affairs that the General Confederation of Vine-growers was formed. Article 4 of its Rules is as follows: "Its object is the union of the Vine-growers' Syndicates for the protection of their economic and agricultural interests.

"It will make it its business:

"(a) to use all its efforts to raise the price of wines to the level at which there will be a real remuneration to the grower;

"(b) to co-ordinate the efforts made by the affiliated Syndicates to suppress the practice of adulteration and artificial manufacture of wines;

"(c) to collect and spread information of value to growers and merchants on the state of the vintage, market conditions, and stocks existing on estates or in the trade;

"(d) to encourage by every means in their power the spread and development of mutual credit societies;

"(e) to bring about in all the centres of vine-growing in France, the formation of Regional Syndicates of Vine-growers and to cause them to be affiliated to the present Union;

"(f) and generally to deal with all questions relating to the working of the federated Syndicates."

The Syndicates affiliated to the Union are five in all: the Vine-growers' Syndicates of Beziers, Carcassonne, Montpellier, Narbonne and Perpignan. The five syndicates have as chief aim the detection of adulteration and the prosecution of any legal proceedings to which that may give rise. Membership is open to owners of vineyards, rent-paying or produce-sharing tenants, those having usufruct or others possessing a

claim to the vintage ; workers in the vineyards ; traders and dealers in wine ; persons following allied occupations who assist in the production and the sale of wine. Each syndicate undertakes only to put on sale genuine wine, that is to say wine made exclusively by fermentation of the juice of fresh grapes.

All the members of a syndicate residing in the same commune form a communal section. Every section has the duty within its own area of detecting adulteration and reporting it to the administrative council of the Syndicate ; of ensuring the execution of the decisions of the General Assembly and of the Administrative Council of the Syndicate ; of managing the capital belonging to the section ; and of directing the subsidiary services that the section can form apart from the syndicate.

The Confederation, which numbers at present 75,000 members, has taken steps, at different times, to institute enquiries in Italy, in Spain, in Belgium, in England, both on the position of viticulture and also on the sale of wines. It has also taken part in numerous exhibitions, in France and abroad, for example in London, Brussels, Liège, Ghent, etc. Immediately before the declaration of War it was taking part in the Lyons exhibition, to which it sent more than 4,000 samples.

In the course of the War the public authorities appealed to the delegates and the organizations of the Confederation, and they took their share of the work of certain special commissions. When the requisition of a part of the vintage was ordered so as to ensure the troops being supplied with wine, the sections of the Confederation used their interest with the members to get them to accept in the national interest the low prices offered by the Commissariat. On the other hand the Confederation through its organizations distributed of its own accord and as a free gift more than 100,000 hectolitres of wine to the troops and to the sick in hospital. Actuated by the same sense of the common responsibility, the Confederation has organized on different occasions subscriptions in aid of victims of storms, hail or floods : in 1920, it opened a subscription on behalf of the vine-growers of Champagne, ruined by the invasion as they were, which produced more than 150,000 francs.

The work of the Confederation continues however to be essentially directed against adulteration so that the genuine article may be protected. From the time of their constitution, the syndicates nominated sampling agents, and applied to the prefects to commission them. By an arrangement with the Confederation of Vine-growers of the South-east, formed about the same time, France was divided into six sectors in which the syndicates exercise oversight. The Confederation employ 32 agents who traverse France, go into hotels, restaurants, and drinking shops, taste the wine served there, take samples of it, have it analysed, and if necessary, report it. If adulteration is proved, the syndicates follow up the matter, inaugurate proceedings, and in many cases act as plaintiff. The Confederation has thus obtained numerous convictions. In 1921 after certain prosecutions had either been dismissed without enquiry by the courts, or inadequate penalties adjudged, the Con-

federation made an application to the Minister of Justice, who sent a circular to the courts requesting them to be more severe. This service of investigation of adulteration is a great expense to the Confederation. In 14 years of its existence, the sums thus expended may be estimated at between seven and eight million francs, and even so the cost was less in the first years, when the service was not completely organized. For some years past, the sum in the Confederation's yearly statement of accounts for the investigation of adulteration exceeds 500,000 francs.

In pursuance of its propaganda for co-operation which is linked with that for the formation of syndicates, the Confederation has taken part in the formation of numerous co-operative societies for the sale of wine, as well as for wine-making and distillation, all originating from its communal sections. To give an example, the Syndicate of Narbonne by itself includes six co-operative societies for the sale of wine, and about twenty for distillation.

Finally the Confederation has thrown out off-shoots. Under its influence and with its advice were formed the Confederation of the South-East, the Confederation of Viticultural Associations of Burgundy, the Algerian Confederation, etc. In pursuance of the complete organization of French viticulture, the Confederation in 1913, brought about the formation of the Federation of Regional Associations of France, of which it has since assumed the direction. Delegates of the Confederation were also received at Barcelona in 1912 and assisted in the constitution of the Union of Catalonian Vinegrowers with similar aims.

In the yearly statement of accounts of the Confederation, the receipts vary considerably. They are made up as a matter of fact of the share of the Confederation in the tax of ten centimes per hectolitre produced, which the members pay to their respective syndicates. The division of the sums paid by the members is arranged as follows. Besides the tax per hectolitre just mentioned every member pays to his syndicate a yearly subscription of 25 centimes. The sum produced by these subscriptions remains untouched in the coffers of the syndicates. As to the ten centimes per hectolitre produced paid by the members, two centimes remain on the books of the communal section, and the other eight are paid to the treasurer of the syndicate to which the section belongs. Finally a sixth part of what is collected by the syndicates goes to the confederation, forming the receipt side of its budget. We may add that the receipts of the Confederation vary from 1,000,000 to 1,500,000 francs. M. B.

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2. A CO-OPERATIVE SOCIETY OF SEED PRODUCERS. — Report by M. R. AUBERGÉ, President of the Co-operative Society of the Seed Producers of the Melasse district, to the General Assembly of the Agriculturists' Society of France (*Bulletin de la Société des Agriculteurs de France*, Paris, supplement to the issue of May 1922).

For a long time past the cultivators of the Melun region had been much concerned at the somewhat poor quality of the seeds supplied by

the dealers to them whenever they decided on making the necessary sacrifices for improving production. Especially since the war the seeds usually on the market had become mixed and far from pure. They therefore decided to form themselves into a co-operative society for the production of selected seeds.

Following on negotiations which took place at the Agricultural Society of Melun between a certain number of cultivators and the Director of the Agricultural Services, a group of 25 farmers, representing a cultivated surface of 6,000 hectares, associated themselves at the end of the year 1920. In spite of the considerable extent of their farms, the various members were grouped within a radius of not more than fifteen kilometres. This made possible satisfactory oversight and a complete application of the co-operative principle.

The members subscribed 590 shares of 400 francs, representing a total capital of 236,000 francs, one quarter of the total value being paid up.

By the terms of article 3 of the rules, the aim of the society is the improvement of cereal seeds, and, with this object, in particular, to produce high-class seeds on a farm known as the "selection farm"; to multiply these high-class seeds in the co-operators' fields; and to subject the seeds so produced to every kind of sorting operation, and to sell them to the best general advantage.

Besides its administrative council, the society has a manager who keeps the books, and who under the chairman's directions sees to the carrying out of all work, correspondence and generally all the operations of the society.

For use in the selection operations, the society has chosen a farm of 430 hectares, on which an area of 60 hectares can be reserved each year, on the one hand for the work of selection properly so-called, on the other for the multiplication of the seeds intended for delivery to the co-operators so that a commercial production may be ensured. A technical committee decides each year on the programme for the cultivation of the selection farm and gives all the necessary directions for the carrying out of the programme. The greater part of these directions are carried out under the oversight of an agricultural expert, whose business it is to examine the cultures, to take samples, to mark plants or ears of special interest and generally to carry out observations or operations that seem necessary to ensure satisfactory selection.

To begin with, the labours of the society have been confined to the varieties of autumn wheat; in the near future there will also be undertaken the scientific selection of the better kinds of spring wheat and oats.

The committee of inspection is composed of three members, chosen by the administrative council from outside the co-operators, and including a former cultivator, a former miller or seedsman, and an agricultural expert who has no connection with the grain trade or with seed production. It is the duty of this committee to visit the plots where the co-operators are reproducing the high-class seed. It has to ascertain in particular whether the seeds are of pure strain, good, homogeneous and free

from disease. Estimates are established by the method of giving points for the different characteristics inspected (purity of strain, homogeneity, vigour, yield, resistance to lodging, freedom from diseases). Perhaps in the future it will be possible to take into consideration gluten content.

Fields to which less than 80 per cent. of the maximum number of points are given by decision of the majority of the Committee are rejected. As in 1921, out of 744 hectares inspected only 212 were passed, it is obvious that the test is severe and that the seed passed could be delivered with an assurance of giving satisfaction to the buyers.

In the fields that have gained the best marks from the Committee of Inspection, the plants of exceptional quality are picked out and the best ears on them used for the sowings made in the autumn the purpose of which is the discovery of better strains. Thus scientific selection proceeds indefinitely.

While waiting for this to allow of obtaining all the seeds necessary for multiplication with the co-operators, an extremely rigorous selection will be continued, beginning from seed from the best lots which the society will always have at hand for the members.

The normal selection period, that is to say the one beginning in the autumn of 1921, will go on over four years for each lot.

In the first place choice will be made of heads of certain strains, taken as fixing the characteristics of strains already selected.

The area given up to each variety will be perforce limited to a few ares only.

The second year, the product of the best strain of each variety will be multiplied on as large a scale as possible, then selected on the spot before harvesting, so as to eliminate plants of only fair growth or showing signs of disease.

During the third year, a new multiplication, followed by a selection both on botanic and mechanical lines, should allow of obtaining at the end of the process of the seed for a fourth crop which, after having been its turn strictly selected at the selection farm, will supply the seeds the co-operators require.

Beginning from 1921, all the seeds these latter require for their seed production have been supplied to them by the society, and beginning from the autumn of 1922 they will in future receive only seeds coming from the selection farm.

Each co-operator may only sow one kind of wheat, so far as possible. This is an absolute rule for each plot so as to avoid mixtures.

After the seeds have been passed on the spot by the Committee of Inspection, the wheats are threshed by the farmers and the Committee institute a fresh inspection for the purpose of passing the lots threshed. This operation includes:

1. The checking of the number of bags of each variety ;
2. The taking of two half-kilogramme samples of each variety ;
3. The delivery of a number of seals corresponding to the number of bags passed ;

4. The affixing of the seals to the bags as they come off the weighing machine, to establish the weight.

The samples taken are sent to the seed trial station in Paris for inspection.

The sorting of the seeds finally passed takes place in a shed working only for the society.

The careful cleaning of all the gear after the treatment of a variety, the uniformity of operations during a season, the percentage of seed and waste in each lot, the scrupulous sealing, the exact fixing of all the bags at 100 kilos and their satisfactory appearance with labels showing origin, all these are under the oversight of a special officer of the society. All bags used for delivery have been and will continue to be invariably new, showing the trade mark of the society clearly, as well as the date of the year of the crop and the name of the variety of wheat. M. B.

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3. A CO-OPERATIVE ALPINE PASTURE SOCIETY. — *Bulletin mensuel de la Société Centrale d'agriculture de l'Office départemental agricole et des Comices et Associations agricoles de la Savoie*. Chambéry, May 1922.

With the object of pasturing their cattle and disposing of the produce on co-operative lines, 40 breeders of Pralognan (Savoy) have just bought a mountain of 600 hectares, with pasture for 120 cows and as many calves. The total cost was 109,000 francs. The agriculturists have subscribed 26,000 francs, and the remainder of the sum will be found by the local agricultural credit bank, on the terms of repayment in 25 years at two per cent.

The annual amortization of the advance from the agricultural credit bank will be effected by the payment of a tax of 40 francs per cow, 20 francs per calf, 15 francs per pig. After the payment of interest at 5 per cent. on the shares paid up, the management expenses will be divided in proportion to the number of cows, and the profits of the sale of the common produce will be divided in proportion to the quantities of milk supplied by each owner.

We may add that, properly managed, the pasture will take more than 150 cows and thus will acquire a superior value.

This undertaking will make it possible for the breeders of Pralognan to realize an annual profit of more than 50,000 francs, while during the War years, with an average pasture rent of 40 francs per cow, they experienced a loss of more than 200,000 francs. M. B.

FRENCH COLONIES.

A CO-OPERATIVE SOCIETY OF EMPLOYERS OF AGRICULTURAL LABOUR IN NEW CALEDONIA. — *Bulletin du Commerce de la Nouvelle-Calédonie et des Nouvelles Hébrides*. — Noumea, 3 February 1922.

On New Caledonia having recourse to Javanese labour, requests were made more than once for the creation of an organization to act

instead of individual colonists in bringing in the labourers. Calculating the net cost of bringing over a labourer at 1,800 francs (cost of bringing into the country 1000 francs, repatriation 500 francs, money wages 300 francs) for a five years' engagement covering about 1800 days' work, the Chamber of Agriculture has decided on the creation of an Agricultural Labour Association, which will obtain from the Bank or by a public issue of bonds the necessary sum, repayable in five years time at latest, that being the period of the hiring agreement.

The employer will have to pay: 1. at the time of enrolment in the association, a sum of 150 francs, which will become the property of the association as soon as the employer has received his labourer, and will serve to cover the interest of the capital tied up; 2. as a subscription, a sum of one franc a day, payable every three months. This subscription will represent a payment of 1800 francs for each Javanese who reaches the end of his term of engagement, the sum necessary to cover the cost of bringing him over, his repatriation and his wage. The risk of death during the period of the agreement, a heavy charge on the individual colonist, will be borne by the new organization which, acting for the whole body, will meet this risk out of reserves. The association will benefit by the interest on sums not utilized for Javanese who do not wish for repatriation. When these reserves have accumulated, it will be possible to consider the undertaking by the association of risks of sickness and the cost of the education of orphans.

The Agricultural Labour Association is administered by a Committee of three members. The Chamber of Agriculture has voted a sum of 50,000 francs, taken out of its available surplus, for this Association. A second payment of 25,000 francs will be made in the course of the year. Finally the Agricultural Syndicate has decided on its own part to co-operate financially in this undertaking.

M. B.

GERMANY

1. AN EXPERIMENT IN THE CO-OPERATIVE MANAGEMENT OF A LARGE AGRICULTURAL UNDERTAKING. — *Landwirtschaftliches Genossenschaftsblatt*, No. 1. Neuwied, 7 January, 1922.

An experiment in the co-operative management of a noble estate (*Rittergut*) has been made on the estate of Hohendorf (near Reichenbach) in East Prussia. The owner handed over a part of his land to his employees and farm labourers to be managed on a joint basis. After a short probationary period the *Wirtschaftsverband Hohendorf*, a co-operative society with limited liability, was founded in July 1920. According to the rules of this society the following were eligible for membership: 1. the owner of the Hohendorf estate; 2. agricultural labourers under 45 years of age possessing, in addition to 300 marks in ready money, a cow, pigs, poultry and a sufficiency of implements; 3. the employees and workmen required for carrying on the business of the society. All members must be resident in Hohendorf.

Each member receives for himself and his family : 1. a dwelling house with outhouses, a garden and kitchen garden ; 2. grain, pulse and whatever else is required for domestic consumption, as a fixed payment in kind ; 3. if married, permission to keep a cow, with fodder supplied gratuitously, provided as many as three members of his family take part in the work, or to keep two cows, if more than three members of his family do so ; 4. a cash wage, fixed by the management of the society, which represents a monthly advance on the share of the profits due to him.

The shares are of the value of 100 marks and the liability is equal to five times the value of the share. The work of the members, and of the persons charged with the direction of the undertaking, as well as the payment and receipt of money and the keeping of accounts are minutely regulated. Fifty per cent of the net profits go to the building up of a guarantee fund, which forms the capital of the society. The remainder of the surplus is divided among the members in proportion to their annual earnings.

The first working year of the co-operative society closed on 1 July 1921. In spite of a very poor yield of cereals and potatoes, as well as the low price of milk on the one hand, and the high wages and expenses on the other, a net profit of over 109,000 marks was made. Of this 50 per cent. was allocated to the formation of a reserve fund, taxes absorbed 10 per cent., 11,600 marks was assigned to a mutual aid fund for the members, and the remainder, 37,101.36 marks, was divided among the members, corresponding to a bonus of about 30 per cent on the year's earnings. These bonuses amounted to from 400 to 2,700 marks for individual members. The result of the first year's working under such unfavourable conditions, shows that the co-operative working of large agricultural undertakings offers good prospects to the co-operators.

M. T.

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2. THE ECONOMIC COUNCIL, OF THE CO-OPERATIVE PRODUCTIVE SOCIETIES AND DISTRIBUTIVE SOCIETIES. — *Frohe wissenschaftliche sozialistische Agrar-Korrespondenz*, No. 586. Berlin, 1 February 1922.

At a conference held at Hamburg which was attended by representatives of the General Federation of the German Raiffeisen Co-operative Societies, of the National Federation of German Co-operative Agricultural Societies, of the Central Federation and Wholesale Purchase Society of the German Co-operative Distributive Societies, and of the National Federation and Central Wholesale Purchase Society of the German Co-operative Distributive Societies, and in which the Ministry of Provisioning and Agriculture also took part, the mutual relations between the Central Federations of the producers and consumers were fully discussed. To promote and maintain direct business relations among the above mentioned organizations, and to establish general guiding principles in this matter, a permanent committee was instituted, the Economic Council of the German Co-operative Productive and Distributive Societies (*Wirtschaftsausschuss der deutschen Erzeuger-und Verbrauchergenossenschaften*).

The presidency, which will pass in turn to each of the four federations, was entrusted for the year 1922 to the General Federation of the German Raiffeisen Co-operative Societies.

M. T.

GREECE.

AGRICULTURAL CO-OPERATION IN GREECE — MYLONAS (Alexandre C.). Le mouvement coopératif en Grèce, in the *Bulletin de la Chambre de Commerce française en Grèce*, Athens, Year 1921, No 33

The co-operative movement in Greece is of quite recent origin. Under M. Venizelos' Government the newly constituted Ministry of National Economy undertook from 1912 onwards, by means of a department created for the purpose, a systematic propaganda on behalf of co-operation. In 1914 a comprehensive law was passed dealing with co-operative societies. Under the provisions of this law, it has been possible to form on a legal basis co-operative associations alike agricultural and urban and industrial.

The legislature has allowed perfect freedom to the development of all co-operative systems: the future will prove which is the best. The law places no restrictions on the aim of the co-operation, on the area of operations of the society, on the liability, which may be limited to the shares or to a multiple of them, or may be unlimited, etc.

Until the unions and federations take up the work at least in part, supervision, inspection and propaganda in relation to co-operation and mutual aid will fall at present on the departments of the two new Ministries that have sprung from the division of the Ministry of National Economy, that is to say, on the one hand the Ministry of Agriculture for the agricultural societies; on the other the Ministry of Commerce, Industry and Labour, which continues to be called the Ministry of National Economy, for the non-agricultural societies. These departments issue model rules and point out the necessary modifications.

Among the penal clauses, there may be mentioned an article constituting a radical interference on the part of the State in favour of co-operation as against all opposition: punishment by fine or imprisonment for a period which may extend to six months is inflicted on "masters, traders, manufacturers, capitalists or any other persons who for personal reasons hinder or dissuade any one from becoming a member of a co-operative society or try to force or induce a member to leave a society, or who practice unlawful means calculated to bring about the dissolution or disorganization of the co-operative society or to prejudice it in any way." Punishment is also inflicted on those who use their influence in the society to obtain an unfair remuneration, as well as members of the Committees of Management or of Supervision guilty of corruption.

On the other hand it has been decided that the personal creditors of members of co-operative societies cannot seize either agricultural produce consigned to the society to be sold, nor the price of such produce with which the society will credit its members.

Finally, the law grants various privileges to co-operative societies,

such as fiscal exemptions, postal facilities, supply of co-operative products to the State or to the communes without contracts, pecuniary rewards to institutions and persons forming co-operative associations, or arranging courses on co-operation to be held during the summer holidays for schoolmasters.

Excellent results have accrued from this law. Before 1914, apart from certain old co-operative undertakings in certain communes, or primitive associations of pastoral peoples for the pasturage of their herds, and for joint production and sale of products, there were not in existence more than about ten co-operative societies properly so-called. The internal troubles of recent years and the War have not prevented the application of the new law and the development of co-operation in Greece. On the contrary the abnormal conditions of the War have brought home to the people here as elsewhere the pressing need for co-operation. That is why at the end of 1918 the co-operative societies of all kinds, formed as a result of the law of 1914, numbered 917 with 45,070 members and 2,945,817 drachmas of capital. In this number there are not included the co-operative societies for the purchase, farming, working and redistribution of lands, societies arising in consequence of the agrarian law dealing with forced expropriation and the redivision of large estates among small cultivators: the number of these societies is at present about 200. Nor are there included the co-operative land-holding societies to be found on certain crown lands or sequestrated estates.

Out of these 917 societies, 280 were agricultural, including 32,648 members with a share capital of 2,515,540 drachmas. Only about 100 are societies with unlimited liability; the liability in the others varies from twice to five times the share, but some go to ten times or even fifty times the share. The total sum represented by the limited liability comes to 15,972,845 drachmas. The area of the society's operations is generally not larger than that of the commune in which the office is situated. About three quarters of the agricultural co-operative societies are of a mixed type, covering credit, savings, purchase and sale. These mixed societies are of great service in small localities. The need for the foundation of specialized societies is only apparent in the large villages, where operations become more complicated, and a greater number of competent managers are to be found. It is the duty of a mixed association, according to its rules, to take part in the formation of specialized societies as soon as circumstances permit.

Among the other agricultural societies we must mention the co-operative societies for purchase, sale and production; co-operative wine-making societies, co-operative dairies and oil-mills. We may call attention also to the societies for the sale of raisins, which are on the way to forming a Central Union.

The number of co-operative societies has more than doubled from 1918 to the end of 1921. At that date there were 1,711 agricultural societies with 95,963 members. Estimating that each person represents a family of five persons on the average, it may be calculated that nearly

half a million persons are interested in agricultural co-operation. Out of these societies 467 have unlimited liability and 1,264 have limited liability. The total of the share capital is 7,325,536 drachmas, and the total liability in the societies with limited liability 46,810,777 drachmas. We may add that there are at present 209 non-agricultural co-operative societies.

A certain number of co-operative societies have banded themselves together and have formed some ten district unions. Steps are being taken to form a National Federation.

The National Bank supplies credit to co-operative societies. The loans made to agricultural co-operative societies (in the statement of accounts for 1921 nearly 25,000,000 drachmas at the rate of 5 per cent.) are regularly repaid, and their total shows a rapid increase from year to year. On the other hand, in Macedonia, in Epirus, in Crete and the Archipelago, three Agricultural State Banks, while especially engaged in making mortgage loans, also take their share in co-operative credit.

M. B.

RUSSIA.

THE NUMBERS OF AGRICULTURAL CO-OPERATIVE SOCIETIES ON 1 JANUARY 1922. — *Russian Information and Review*, Vol. I, No. 12. London, 16 March 1922.

Returns compiled by the Commissariat for Agriculture show that on 1 January 1922, there were over 10,000 agricultural co-operative societies in existence, embracing 2,000,000 peasant households. The types of organization are shown in the following list, which is not complete, and represents only those for which particulars are available:—

Types of Agricultural Co-operative Societies.

1. Producers' societies:	
Artels and fellowships in common	533
2. Specialised Societies:	
Agricultural machinery societies	27
Stock breeding societies	3
General improvement societies	118
Societies for buying materials, etc.	29
3. Agricultural produce societies:	
Dairy produce	1,068
Orchard and kitchen garden	117
Bee-keeping artels	82
Seed oil	36
Grain milling	482
Flax	21
Societies for sale of all kinds of agricultural produce	2,116
4. Credit societies	84
	—
Total	4,716

Many of the consumers' co-operative societies also carry out, on behalf of their members, operations similar to those of the special agricultural societies, so that the total volume of assistance rendered by co-operation to the peasantry is very considerable. M. T.

KINGDOM OF THE SERBS, CROATS AND SLOVENES.

THE DEVELOPMENT OF CO-OPERATION. — *Agramer Tageblatt* Agram, 9 March 1922.

In different parts of the country the following co-operative societies are affiliated to the General Federation of the Co-operative Societies of the Kingdom of the Serbs, Croats and Slovenes:

In Serbia the Federation of the Peasant Co-operative Societies, with 1500 co-operative societies, 85,377 members and a total business (in-comings and out-goings) of 85,481,081 dinars.

In Croatia and Slovenia, the Croat-Slovene Agricultural Union of Agram with 321 societies, 70,622 members and a total business of 813,579,517 crowns; the Federation of Serbian Peasant Co-operative Societies of Agram, with 411 societies, 10,624 members and a total business of 186,817,984 crowns; the Central Federation of Croatian Peasant Co-operative Societies with 375 societies, 40,634 members, and a total business of 283,823,019 crowns; the Croat-Slovene Agricultural Union of Osijek with 183 societies, 31,141 members and a total business of 85,481,081 dinars.

In Slovenia, the Federation of the Co-operative Societies of Laibach with 525 members, and a total business of 1,462,700,789 crowns; the Federation of the Slovene Co-operative Societies of Laibach with 127 societies, 17,332 members and a total business of 126,320,774 crowns; the Co-operative Federation of Celje, with 142 societies, 31,572 members and a total business of 231,678,174 crowns.

In Bosnia and Herzegovina, the Federation of the Serbian Peasant Co-operative Societies of Sarajevo, with 116 societies and 7,089 members; the Federation of Croatian Peasant Co-operative Societies of Sarajevo, with 77 co-operative societies.

In Dalmatia, the Co-operative Federation of Split, with 262 societies, 54,000 members and a total business of 576,000,309 crowns; the Federation of Co-operative Purchasing Societies of Primorje Dubrownic with 62 societies, 2,834 members and a total business of 345,870 crowns.

On the whole, taking count of the other societies that are outside the General Federation, there are in the whole country in round figures 5,000 co-operative societies, with about 500,000 members. M. T.

Credit

GREAT BRITAIN AND IRELAND.


AGRICULTURAL CREDIT FACILITIES DURING THE WAR.

OFFICIAL SOURCES :

- REPORTS OF THE BOARD OF AGRICULTURE FOR SCOTLAND for the years ended 31st December 1914 to 1920. Edinburgh, 1915 to 1921.
- ANNUAL GENERAL REPORTS OF THE DEPARTMENT OF AGRICULTURE AND TECHNICAL INSTRUCTION FOR IRELAND, 1913-14 to 1918-19. Dublin, 1915 to 1921.
- REPORTS OF THE CONGESTED DISTRICTS BOARD FOR IRELAND, for the years ended 31st March 1914 to 1920. Dublin, 1915 to 1921.
- MINISTRY OF RECONSTRUCTION: REPORT OF THE AGRICULTURAL POLICY SUB-COMMITTEE OF THE RECONSTRUCTION COMMITTEE. London, 1918.
- CONACHER (H. M.) and SCOTT (Dr. W. R.): Economics of Small Farms and Small Holdings in Scotland. Interim Report to the Board of Agriculture for Scotland. Edinburgh, 1920.
- CONACHER (H. M.) and SCOTT (Dr. W. R.): Agricultural Credit and Organisation in France, with suggestions for a Scottish Scheme of Agricultural Credit. Report to the Board of Agriculture for Scotland. Edinburgh, 1921.
- Journal of the Board (now Ministry) of Agriculture*, Vol. XXIV, Nos. 1, 6, 9, 10; Vol. XXV., No. 6, and Vol. XXVIII, No. 10. London, April, September, December 1917; January, September 1918, and January 1922.
- Journal of the Department of Agriculture and Technical Instruction for Ireland*. Vol. XVII, Nos. 2, 3, 4. Dublin, January, April, July 1917.
- Information directly supplied to the International Institute of Agriculture by the Department of Agriculture and Technical Instruction for Ireland.

OTHER SOURCES :

- REPORTS OF THE AGRICULTURAL ORGANIZATION SOCIETY for the years ending 31st March 1916, 1917 and 1918. London, 1917, 1918 and 1919.

The need of additional credit facilities was not very strongly felt by the farmers of Great Britain and Ireland during the early part of the War, and, for reasons of public economy, some of the facilities which they had previously enjoyed were restricted. It was not until efforts were being made in 1917 largely to increase the area of arable land that some steps were taken to give greater opportunities to farmers to obtain the capital required for putting the scheme into execution. We propose here to indicate for each of the three kingdoms separately the initial restrictions (if any) and the subsequent increase of agricultural credit facilities. 

§ 1. AGRICULTURAL CREDIT IN ENGLAND AND WALES.

In March 1917, the Board of Agriculture made arrangements with the principal banks in England and Wales whereby the Banks agreed to grant loans to farmers, against the guarantee of the Government, for the purchase of seeds and artificial manures. The main object of the scheme was to promote the increased production of wheat, oats and potatoes, but similar advances would be made in respect of other crops, the growth of which might in special cases be a matter of urgent national importance.

A farmer desiring to avail himself of the facilities was to apply to the War Agricultural Executive Committee for his county stating the description and quantity of fertilizers or seeds which he wished to procure and the source from which he suggested that they should be obtained ; the class and acreage of the crop in respect of which the expenditure was to be incurred ; the reason for seeking assistance in obtaining special credit, and the name of the bank at which he had an account, or, if he had no banking account, the bank at which he would wish the credit to be provided.

The Executive Committee, after such inquiry as they might deem necessary, could approve the provision of credit and authorize the applicant to order from any firm or society approved by the Committee, goods of the description and value specified in the authority. The Food Production Department suggested to the Executive Committees that use should be made of well-established co-operative trading societies, and that the Committees should draw up lists of such societies as well as of private traders with whom they would approve of transactions taking place.

The applicant was to place his order with the approved firm or society, together with the letter of authority, and to request them to send to the Executive Committee the invoice announcing the despatch of the goods. The Committee was then to endorse the invoice to the bank nominated and to forward it to the applicant. The latter would present the endorsed invoice to the bank, who would pay it, and take from the applicant a promissory note agreeing to repay the amount with interest at 5 per cent. on a specified date. The period of the loan was not to exceed nine months. This scheme was extended in the autumn of 1917 by including in the purposes for which the loans could be granted the purchase of working horses, machinery, implements or any other requirements necessary for the increase of food production. While loans were usually to be granted for nine months, they might be renewed at the expiration of the nine months for a further period. Co-operative societies were made eligible for the grant of credit under the scheme as well as individual applicants.

Some modifications, rendered necessary by the extended scope of the scheme, were made towards the end of the year. A different procedure was authorized for dealing with applications by farmers who had a banking account. Upon approval of an application the Executive Committee

would notify the applicant and his banker and the Bank would on the request of the applicant credit him with the approved amount, or any smaller amount he might specify. The applicant would then order his requirements in the usual way and settle the account (or accounts) direct with the dealer (or dealers) by drawing on the Bank up to the amount authorized. The receipted invoice (or invoices) would then be sent by the applicant to the Committee for scrutiny and subsequent return to him. A comparison of the invoice (or invoices) with the particulars of the approval afforded a safeguard against the use of credit for other than approved purposes. In the case of applicants who had no banking account the procedure previously followed was to be continued.

It was left to the discretion of the Committees as to whether they would make it a condition of the grant of credit that the purchases made under the scheme should be insured or that the applicant should repay the advance forthwith in the event of a sale being effected before the obligation to repay had matured.

The Government guarantee in respect of the loans was originally limited to the period ended 31st December 1917, but it was extended for a further period of twelve months from that date.

A further extension of the scope of the scheme was made in August 1918. Its application was authorized in cases in which farmers for whom cultivations were carried out by the Agricultural Executive Committee had not sufficient ready money to pay cash to the Committee for those cultivations. This authorization was of distinct advantage in enabling an occupier who was short of working capital to break up additional land, and in obviating the necessity for the Committee to enter and take possession, with a view to carrying out the cultivations and recovering the cost when the crops were harvested.

The scheme was discontinued after the War, but a Special Committee was appointed towards the end of 1921 by the Agricultural Advisory Committee for England and Wales "to consider and report whether in the interests of maintaining production, and to promote employment on the land, it is desirable to revive or to extend the scheme of providing short term credit to farmers which was in operation during the War."

During the War an investigation into the conditions of agricultural credit was made for the Agricultural Organization Society by Mr. John Ross. Upon the basis of his report a scheme was drawn up, which was approved by a Conference of societies affiliated to the Agricultural Organization Society and was afterwards adopted without alteration by the Agricultural Policy Sub-Committee of the Reconstruction Committee in their Second Report.

The scheme was confined to the subject of credit for the purchase of goods by the farmer. It was proposed that the Joint Stock Banks should be asked to finance the scheme as an ordinary banking proposition, and the main proposals were:—

1. That the credit should be closely linked with trading.
2. That a condition of the credit should be that the farmer should

buy from the Trading Society of which he is a member everything for the purchase of which he wants credit.

3. That this credit should accordingly be administered solely by approved agricultural co-operative trading societies and by their central wholesale purchasing body, the Agricultural Wholesale Society, and should be available only to members of such approved societies.

§ 2. AGRICULTURAL CREDIT IN SCOTLAND.

Under the Small Landholders (Scotland) Act, 1911, the Board of Agriculture has power to grant loans to existing landholders for the re-erection or improvement of buildings on small holdings. In 1914 loans for these purposes to a total amount of £8,223 were granted, but in the following year the Board decided to grant such loans only in cases where the loans previously granted were insufficient owing to the rise in prices to complete buildings in course of construction.

The Board had also powers to grant loans for similar purposes to new holders. These were continued during the War, but the applications were not numerous, partly on account of the scarcity of labour and the increased cost of materials.

Loans and (more often) grants are also given by the Board for obtaining fencing material. They are given only to townships with statutory Grazings Committees and during the War the making of such grants or loans was practically suspended.

In 1915 the Board of Agriculture agreed to make advances, not exceeding £600 in all, to District Agricultural Committees to enable them to purchase manure distributors for the purpose of hiring them to farmers, and offered an advance to a District Committee which desired for the same purpose to purchase two motor ploughs. These advances were to be repayable by annuity over five years, calculated at 3 per cent. interest.

In 1916 the Board adopted the policy of itself purchasing agricultural machinery and implements and allocating them to District Agricultural Executive Committees for hire to farmers. At the outset the implements were sold to the Committees, the price being payable by annual instalments, but in September 1917, in order to relieve the Committees of financial responsibility and with a view to simplifying arrangements for the supply of petrol, oils, spare parts and skilled drivers the Board took over all the machinery and implements then in the hands of the Committees.

After the War the Board of Agriculture instructed Mr. H. M. Conacher and Dr. W. R. Scott to make an enquiry into the economics of small agricultural holdings in Scotland, as a preliminary to a consideration of the need of making capital more readily available to the occupants of such holdings. They presented a report on this subject in 1920 and in 1921 a further report embodying the results of a study of agricultural credit in France and containing a scheme of agricultural credit applicable to Scottish conditions. They suggested that provision should be made:—

1. For the issue of short-term loans (from three months to five years)

(a) To co-operative trading societies engaged in the purchase of seeds and agricultural requisites and the sale of eggs and poultry, provision of raw material and implements and sale of products of industries, provision of agricultural machinery for farmers and crofters.

(b) To individual farmers and crofters, mainly for the purchase of stock.

2. For the issue of long term loans to societies of co-operative production to help them to obtain fixed capital.

3. For the issue of long term loans to individuals desirous of accumulating capital to enter a holding, such individuals having in the meantime deposited sums in anticipation with the credit institution.

4. For the issue of long term loans to stock insurance societies.

They did not recommend the creation of a central land bank to deal with this varied business, nor did they propose to adopt the French plan of local co-operative societies dealing almost exclusively in short-term credit. They proposed, however, that a number of district credit institutions should be formed resembling the French "Caisses régionales." Ultimately they hoped that it might be possible to set up such an institution in every county where crofters and small farmers were numerous. In the meantime it might be possible to form them in districts where there was a number of co-operative trading societies. It was hoped that all such societies would take shares in the county or regional land bank.

§ 3. AGRICULTURAL CREDIT IN IRELAND.

In Ireland loans for agricultural purposes are granted by several Government Departments — the Board of Works, the Department of Agriculture and the Congested Districts Board.

Loans Granted by the Board of Works. — The Board of Works grants two distinct classes of loans, namely loans for arterial drainage and loans for land improvement. Though at one time considerable sums were advanced for arterial drainage the amount so advanced had been exceedingly small for some years prior to the War. In 1913-14 a loan of £50 was made for river drainage and in 1918-19 a sum of £40 was advanced for river drainage maintenance, but these are the only loans of this class made in recent years. Loans for land improvement are made to landowners under the Landed Property Improvement Act 1847, and subsequent amending acts, and to tenants under the Land Law Act of 1881. Loans of these two classes were suspended from August 1915 to February 1919; that is to say, no new loans were sanctioned, though sums were advanced in respect of loans previously sanctioned. Table I shows the number of loans for land improvement sanctioned and the sums advanced in each financial year since 1913-14.

TABLE I. — *Loans for Land Improvement granted by the Board of Works.*

Year	Loans to landowners		Loans to tenants	
	Number of loans sanctioned	Amounts advanced £	Number of loans sanctioned	Amounts advanced £
1913-14	470	83,357	709	43,519
1914-15	520	88,914	177	37,614
1915-16	5	18,949	2	5,301
1916-17	—	2,855	—	193
1917-18	—	155	—	—
1918-19	—	—	—	—
1919-20	65	11,524	14	900
1921-22	71	16,926	17	2,611

In connection with the schemes for increasing food production loans were given in 1917 to occupiers of holdings not exceeding £10 valuation and to tenants of labourers' plots or allotments for the purchase of seed oats, seed potatoes and artificial manure. These loans were given in kind through the medium of the Rural and Urban District Councils, which were authorized to raise funds on the security of the rates with which to purchase in bulk seeds and manure for distribution to such occupiers, who were to pay for them on specially easy terms. The funds were advanced by the Board of Works and the Department of Agriculture arranged to procure supplies of seeds and manure for the local authorities. A supplementary scheme was also drawn up for supplying seed oats and seed potatoes to non-rated small cultivators in rural districts.

The scheme for small holders and labourers was adopted by 128 Rural District Councils and 39,644 applications were received. The supplementary scheme was adopted by 21 Rural District Councils and 1,019 applications were received. The scheme for allotment-holders was adopted by 28 Urban District Councils, but no applications were received.

The total quantities of seeds and manure supplied under these schemes were: Potatoes, 5,809 tons; oats, 1,892 tons; manure, 2,900 tons; vegetable seeds, 478 parcels. In addition loans were sanctioned in a few cases by Rural District Councils for the direct purchase of seeds. The cost, exclusive of carriage, of the seeds and manures supplies was approximately £117,000 and the total amount advanced by the Board of Works to Rural District Councils was £123,140.

For the 1918 season it was not found necessary to continue the scheme for the supply of seeds on credit, as it appeared that a sufficient supply would be available in most districts.

Loans Granted by the Congested Districts Board. — The Congested Districts Board grants loans to tenant-purchasers in the congested districts for the erection or improvement of dwelling-houses and loans for the purchase of live stock to migrants and tenants who have obtained substantial increases to their holdings.

The granting of loans for the erection and improvement of dwelling-houses was practically suspended during the War for reasons of economy, such loans being only given in a few exceptional cases, and was not resumed after the cessation of hostilities. Table II shows the number and amount of such loans sanctioned in each financial year since 1913-14.

TABLE II. — *Loans for the Erection or Improvement of Dwelling-houses Granted by the Congested Districts Board.*

Year	Loans for the erection of dwelling-houses		Loans for the improvement of dwelling-houses	
	Number	Amount £	Number	Amount £
1913-14	41	1,940	42	1,115
1914-15	66	3,160	30	1,022
1915-16	3	120	3	150
1916-17	1	25	4	100
1917-18	3	105	—	—
1918-19	—	—	3	65
1919-20	—	—	2	50

No special restrictions was placed on the issue of loans for the purchase of live stock but the number of loans issued since 1913-14 has steadily declined, except for a slight rise in the year 1917-18. Table III shows the number and amount of loans issued under this scheme since 1913-14.

TABLE III. — *Loans for the Purchase of Live Stock issued by the Congested Districts Board.*

Year	Number issued	Amount £
1913-14	164	3,636
1914-15	123	3,065
1915-16	82	2,510
1916-17	81	2,648
1917-18	96	2,803
1918-19	45	1,457
1919-20	33	1,204

Loans Granted by the Department of Agriculture. — The Department of Agriculture for Ireland had in operation prior to the War a number of

different schemes for the granting of loans for agricultural purposes. So freely was advantage taken of these schemes that in 1913-14 the funds set aside for the purpose became exhausted and even before the outbreak of War it was determined to restrict both the number of schemes and the extent to which applications for loans could be accepted.

The schemes for granting loans for the purchase of bulls and stallions, which are not aimed at benefiting the individual farmers so much as at introducing pure-bred animals for the benefit of the surrounding locality, were continued during the War, as they were considered indispensable for maintaining in the country a sufficient number of high-class sires. Tables IV and V show the number and amount of loans for the purchase of bulls and stallions since 1913.

TABLE IV. — *Loans Granted by the Department of Agriculture for Ireland for the Purchase of Bulls.*

Year	Number	Amount £
1914	211	5,355
1915	132	3,597
1916	134	3,967
1917	116	4,503
1918	92	3,942
1919	90	3,841

TABLE V. — *Loans Granted by the Department of Agriculture for Ireland for the Purchase of Stallions.*

Year	Number	Amount £
1914	24	1,757
1915	20	1,050
1916	21	1,417
1917	5	455
1918	11	675
1919	8	787

In the early part of the War the granting of loans for the purchase of agricultural implements and machinery was greatly restricted, but the issue of the Compulsory Tillage Regulations in December 1916 and January 1917, under which farmers were compelled to cultivate an increased area of land, made it necessary to give facilities for the acquisition of the implements and machinery required. The Department of Agriculture accordingly provided loans for this purpose. In the original scheme the loans were not to be of less than £5, though a joint application for a loan of at least £5 from several farmers who individually required a loan of less than that sum would be entertained. Applications from societies of farmers would also be considered. The applicant was expected to deposit

one fifth of the purchase money and the Department advanced him on approved personal security the remaining four fifths. The loan was to be repaid in three annual instalments with interest at the rate of 5 per cent. In the case of the more expensive machinery, such as threshing machines or motor tractors, the period of repayment might be extended to five years.

Early in the summer of 1917 it was decided to reduce the minimum loan from £5 to £2 8s., or, in other words, to reduce the minimum cost of machinery for which a loan would be granted from £6 5s. to £3. This enabled the poorer farmers to obtain, for example, knapsack sprayers.

The number and amount of loans for the purchase of implements and machinery from 1913-14 to 1920-21 are shown in Table VI. The increase resulting from the special facilities given in 1917 is very marked.

TABLE VI. — *Loans Granted by the Department of Agriculture for Ireland for the Purchase of Agricultural Implements and Machinery.*

Year	Number	Amount £
1913-14	482	4,840
1914-15	105	1,106
1915-16	258	4,973
1916-17	3,354	84,449
1917-18	3,014	87,412
1918-19	2,099	63,890
1919-20	908	23,370
1920-21	185	2,530

The Loan Fund System. — There exists in Ireland a form of rural credit known as the Loan Fund System, the origin of which dates back to the eighteenth century. Under this system societies, called "loan fund societies," were formed for making small loans repayable by weekly instalments. The loans were originally intended for industrial purposes, but the majority of the borrowers have long been agriculturists. The system was regulated by successive Acts of Parliament, and was supervised by a central board of commissioners, the Loan Fund Board, but it was defective in many ways and considerable abuses arose in connection with it. The number of loan fund societies was highest in 1842, when it reached 300, but the number and total amount of the loans granted reached their maximum in 1845; in that year, although the number of societies had fallen to 245, the loans granted numbered 507,339 and amounted to £1,857,457. The great famine of 1847 brought about a heavy fall in the number of societies and the number continued from that time to decline steadily. In 1912, there were only 51 societies in existence.

The Departmental Committee on Agricultural Credit in Ireland, reporting in 1914, urged that the powers of the Loan Fund Board should be transferred to the Department of Agriculture. This recommendation was carried out in December 1915 and the Department immediately

gave its attention to the improvement of the system, but this was delayed by the pressure of work in other directions arising from the War.

Early in the spring of 1917 the Department of Agriculture urged the committees of the loan fund societies to utilize the funds at their disposal, as far as possible, during the sowing season for the making of advances to deserving borrowers of the agricultural classes, especially labourers, allotment holders and small farmers, for the purchase of seeds, manures, implements, etc. In the following years, however, owing to the high prices obtainable for agricultural produce, farmers and agricultural labourers did not find it necessary to take advantage of the borrowing facilities afforded by the loan fund societies, with the result that the lending operations of many of them showed a decline.

The following table shows the number and amount of the loans issued by loan fund societies in each year since 1913:

TABLE VII. — *Loans issued by Loan Fund Societies since 1913.*

Year	Number	Amount £
1913	31,229	184,628
1914	30,037	179,538
1915	27,768	168,987
1916	25,681	157,736
1917	24,051	154,611
1918	21,023	139,941

The maximum loan which can be granted by a loan fund society was £10, but the average amount of the loans was £5 18s. 2d. in 1913 and increased to £6 13s. 1d. in 1918.

J. K. M.

MISCELLANEOUS INFORMATION RELATING TO CREDIT

COLOMBIA.

1. REGULATIONS RELATING TO THE GENERAL DEPOSIT WAREHOUSES — *Diario Oficial*, Nos. 1764 and 1765. Bogotá, 4 November 1921.

By the Law of 2 November 1921 regulations were laid down with the aim of defining the legal status of the General Deposit Warehouses in Colombia, and more particularly of defining the function and credit validity of the documents which these same warehouses are empowered to issue in respect of the goods deposited in them.

In the first place the law affirms that by General Deposit Warehouses are meant establishments primarily intended for the deposit, pre-

servation, safe keeping and in some cases the sale of goods, produce or fruits of home or foreign growing, but also issuing credit instruments transferable by endorsement and intended to credit the endorsee with the goods deposited or to obtain loans on the security of the same goods.

These General Deposit Warehouses, as definitely stated in the law, are to be regarded as credit institutions or societies, and are therefore subject to government inspection in conformity with the regulations contained in the legislation in force.

The same law in view of the legal status mentioned as accorded to the General Warehouses, lays down that their rules and regulations must be approved by the Government and further decrees that no General Deposit Warehouse can be established with a capital less than 100,000 pesos of which at least a third must be paid up.

Having laid down the character and lines of procedure of the General Deposit Warehouses, the law cited goes on to regulate the credit instruments which the Warehouses have power to issue. These are: certificates of deposit and warrants or pledge notes (*bonos de prenda*).

The certificate of deposit represents the goods deposited and is intended to act as a means of transfer, the purchase of the certificate conveying also property in the goods.

The warrant represents the loan agreement with the accompanying security of the goods deposited, and confers by itself the rights and privileges of a credit on pledge.

Having indicated the forms of these documents and the information that must be supplied on them, the law lays down some more precise instructions for the employment of these credit instruments, which we will briefly indicate.

It is laid down in the first place that certificates and warrants cannot be issued if the goods corresponding are liable to any charge or to legal seizure, of which the General Warehouse has had notice.

Certificates of deposit and warrants can be passed on by endorsement either together or separately.

The endorsement of a warrant only constitutes for the person in whose favour it is endorsed the pledge of the goods, while the endorsement of the certificate alone confers the right of disposing of the goods on condition of paying the credit guaranteed by the warrant.

The law then gives power to the holder of the certificate of deposit alone to pay the debt guaranteed by the warrant even before it falls due. For this purpose, if an agreement cannot be come to with the holder of the warrant, he will deposit in the General Warehouse, till the day the debt falls due, the capital and interest guaranteed by the said warrant. The holder of the warrant alone, if the amount it stands for is not paid on the due date, can proceed to the protest of the instrument, demanding from the Warehouse the sale of the goods, in accordance with the regulations of the law itself on the point.

In the time intervening between the protest and the beginning of the sale, the holder of the certificate of deposit can redeem the warrant

under protest, by means of the payment of capital and interest. He is besides expected to indemnify all losses, which are calculated at the rate of five per cent. of the capital represented by the warrant protested.

On the other hand in the case when the sale has been effected, the law lays down that the sum made must first of all be used to cover expenses of warehousing, of the sale, and of the care of the goods, etc.; the first claim on the remainder is the payment of the sum guaranteed by the warrant and the interest agreed upon.

If the sum made by the sale should be larger than the amount of the credit represented by the warrant, the excess will be kept at the Warehouse at the disposal of the holder of the certificate of deposit.

In this case also the holder of the warrant protested has the right to compensation for damages, to the extent of 5 per cent. of the capital representing his credit.

If, again, the goods sold are not sufficient to satisfy the credit, he will have a personal claim against the preceding endorsees, who will be jointly and severally liable for the unsatisfied portion of the credit. This claim is subsidiary, unless it is expressly stipulated that it can be exercised as the principal means of recovery.

The holder of the warrant can also make good his claim in the case that the goods are claimed by a third party as his own, having been stolen from him.

The law also contemplates the case in which the goods deposited are insured against fire and lays down that the holders of the certificate of deposit and of the warrant have the same rights over the compensation paid for damage by fire that they have over the goods insured.

The law further confers on the holder of the warrant the right to receive partial payments on account, to be attributed either to the repayment of the capital lent, or both to repayment and to the payment of interest. The holder of the certificate of deposit who is at the same time the holder of the warrant, has the right to demand that the goods deposited should be divided, at his own expense, into several parts or lots and that for each of these a separate certificate should be issued, with a corresponding warrant, in place of the single certificate, which will be withdrawn by the Warehouse.

Even the holder of the warrant has the right to demand the division of the goods deposited into lots. In this case the Warehouse will notify the holder of the certificate of deposit, in order that he may obtain the partial certificates, returning the single certificate, which will be duly cancelled.

In these cases the sale must be carried out in accordance with the division made both in the warrant and the certificate of deposit.

The law lays down, lastly, what must be the characteristic form of the warrants and certificates and gives power to the government to issue regulations for carrying out the law itself.

2. THE SYSTEM OF AGRICULTURAL PLEDGES — *Discreto Opinión*, No. 17, 176-17, 177
Bogotá, 22 November 1921

By Law No. 27, dated 5 November 1921, the system of agricultural pledges was introduced into Colombia and special regulations were laid down for its application.

Under the terms of this law, machinery of all kinds, implements of labour, animals of all kinds and their produce, fruit of every kind, even when ungathered, timber, mineral products and other products of Colombian industry may be pledged.

For the establishment of a pledge on moveables which may be considered as fixtures in view of the purpose to which they are put, if there is a mortgage on the property in which the said moveables are incorporated, the law requires that the consent of mortgagee shall be obtained.

The law lays down that the debtor must keep, in the name of the creditor, the goods pledged, assuming all the duties and responsibilities relating thereto, and that he cannot make any other contract affecting the same goods without the consent of the creditor or creditors.

The debtor is, moreover, forbidden to remove the goods from the place where they were when they were pledged and from the area over which the Registry in which the contract was entered has jurisdiction, unless he notifies the creditor and the person or persons in whose favour the pledge note has been successively endorsed, indicating the place to which the goods are to be removed. When the debtor fails to notify the removal of the goods, the creditor can apply to the local magistrate for the sequestration of the goods or their return to the place where they originally were.

The law allows the debtor to sell the goods pledged, if he wishes to do so, but the goods must not be transferred to the purchaser until the sum due to the creditor has been repaid.

When the property is sold, of which the crops or produce are pledged, the pledge being duly registered, the crops or produce may be handed over to the purchaser, provided he repays the loan for which they served as security.

The contract by which the goods are pledged can be made either in the form of a private agreement or by a public act to be registered in the proper Registry. As soon as it is registered a copy of the entry will be sent to the creditor and this serves as the pledge certificate.

The law lays down special provisions regarding the efficacy of the pledge certificate. It is transferable by endorsement, and if so transferred must indicate the date, the names and addresses of the person who endorses it and of the person in whose favour it is endorsed, as well as contain their signatures. The debtor and the persons endorsing the certificate are jointly and severally liable for the amount of the loan, together with interest and the expenses of recovering them.

The right of distress which arises out of the pledge ceases after two

years from the registration of the contracts: the law, however, lays down that this period may be interrupted by the presentation on the part of the creditor of the application to levy distress.

At any moment the debtor may himself free from the pledge the goods indicated in the contract, by lodging in court, for the benefit of the rightful holder of the certificate, the total amount of the loan and of other payments due. If this lodgement takes place before the end of the period fixed, the amount lodged must include the interest due up to the end of the period, which will be paid over to the creditor.

The agricultural pledge certificate has the character of an executive document both when personal action is brought against the debtor and the endorsers, and when action is brought against the holder of the goods given in pledge. Even in the latter case the credit given on the pledge of goods has a first claim on the purchase-price of the goods pledged if they are sold, on the amount of compensation if they are insured and, in case of loss or depreciation of the goods through the fault of third parties, on the sum payable by such persons as compensation for damage.

The holder of the pledge certificate cannot act against the endorsers, if he has not taken action to distrain upon the goods pledged within the 30 days following the expiry of the period for which the loan was granted. If he has taken such action, he may take action against the debtors or the endorsers, within the same time or subsequently, for the recovery of the balance due, on the conditions laid down for joint and several debtors, and he may in case of notorious depreciation of the goods pledged apply also for their seizure in advance.

The law also lays down rules to be followed in case of the death, legal incapacity or absence of the debtor and, in case of the transfer of his goods.

As long as the contract is in force, the debtor is obliged to allow the creditor to inspect the goods pledged. It may also be agreed in the contract that the debtor shall send periodically to the creditor a statement of the condition of the goods and an account of the sale of live stock and produce, always supposing that the price realized is to be devoted to the payment of the debt.

Lastly rules are also laid down concerning the penalties which are incurred by the debtor who abandons the goods pledged, to the damage of the creditor and independently of the liability of the person with whom they are deposited, or who disposes of goods pledged as if they were not subject to the pledge, or who pledges other persons' goods as if they were his own.

E. F.

DUTCH EAST INDIES.

A CREDIT BANK FOR CROPS IN THE DUTCH EAST INDIES. — *Javasche Courant* (*Java Official Journal*), No. 68 (supplement). Batavia, 26 August 1921

In October 1918 a group of financiers, who foresaw the approaching economic crisis, drew up a carefully considered scheme for the foundation of a bank of auxiliary credit, with the view of granting loans towards the

growing of any crops that stood especially in need of such support. But the crisis did not take place so soon as was anticipated. The said group did not, therefore, pay up the capital, and did not take any further measures, remaining inactive till 1921.

In that year, however, the conditions under which the greater part of the cultivation was carried on became somewhat difficult and the intervention of the group became necessary.

By the law of 3 August the *Cultuurhulpbank voor Nederlandsch-Indie*, a joint-stock company was formed with head-quarters at Batavia.

The Board of Directors has power to open branches wherever it appears necessary.

The aim of the company is the increasing of cultivation. The means employed to the end consist in the granting loans to agriculturists, in the purchase of holdings of associations — for the purpose of resale — and in other forms of assistance considered profitable by the Board of directors.

The share capital amounts to one million florins and is divided into one hundred shares of 10,000 florins each.

Of these hundred shares, 81 were allotted immediately after the establishment of the bank among those who had united to bring it into existence, that is to say 25 to the *Nederlandsche Handelmaatschappij* (Dutch Trading Company), 25 to the *Nederlandsch-Indische Handelsbank* (Commercial Bank of the Dutch Indies), 25 to the *Nederlandsch-Indische Escompto Maatschappij* (Discount Bank of the Dutch Indies), two to Messrs. Tiedeman and Van Kerchem, two to Messrs. Geo. Wemy and Co. and the remaining two to Messrs. John Peet and Co.

There were nominated as members of the Board of Directors the representatives of the companies and firms above mentioned and as chairman the Director General of Agriculture, Industry and Commerce or his deputy, that is to say, another official designated by the Government.

H. M. R. L.

RUSSIA.

THE PROBLEM OF CREDIT FOR RUSSIAN AGRICULTURE. — *Экономическая Жизнь (Economic Life)*, No. 25, Moscow, 2 February, 1922.

The discussions of the Council of National Economy directed towards the solution of the problem of long and short term credit for agriculture have reached the following conclusions. In consideration of the fact that the means at present available do not permit the creation of a special agricultural mortgage bank, as would be desirable, there has been established on the part of the Bank of the State, for the purpose of granting agricultural credit, a special fund amounting to at least 100 million gold roubles. The fund is to consist of three parts: 1. a fund for the granting of loans to the poorer peasants; 2. the fund for agricultural credit, properly speaking; 3. a fund for the granting of credits with a view to the development of particular kinds of cultivation and for the carrying out of agricultural improve-

ments. Since commercial transactions in land are no longer possible, it cannot represent the basis of mortgage credit, so that yield has to take its place for that purpose. The amount of credit to be granted has to be fixed by estimating the capital value of a given portion of the yield of the land. The granting of loans is arranged through the medium of the co-operative credit banks. The interest and the instalments of repayment are to be reckoned in gold roubles. Short term credit, on which the major number of the operations are based, must be granted for a maximum period of a year, and be guaranteed by the property of the debtor; long term credit for the general reconstruction of farms must be granted for a period of from one to six years and be guaranteed by the produce and any new acquisitions of buildings, etc; finally long term credit for improvements must be guaranteed on the joint and several liability of all those belonging to the agricultural association concerned.

M. T.

Miscellaneous Questions relating to Agricultural Economy

ECONOMIC AND SOCIAL CONDITIONS OF THE AGRICULTURAL CLASSES

MISCELLANEOUS INFORMATION.

INTERNATIONAL QUESTIONS

THE THIRD INTERNATIONAL CONGRESS ON THE TEACHING OF HOUSEHOLD MANAGEMENT. — *Bulletin de l'Union du Sud Est*. Lyon, May, 1922.

The Third International Congress on the teaching of Household Management arranged by the International Office of Household Management Instruction with headquarters at Fribourg (Switzerland), was held in Paris from 18 to 24 April last. Thirty-three nations were represented there, and the membership roll included 400 organizations and more than a thousand individuals. Several hundred enquiries had been undertaken in view of it, and served as the basis of general reports to which the discussions related.

This Congress was the first of the kind to be held since the war. In 1908 there was one at Fribourg and another at Ghent in 1913. It was particularly interesting to gather the impression of all the members of the Congress on the position of domestic science teaching at the present time.

Household management is either urban or rural. In both cases the instruction has the object of preparing young girls for looking after a house and a family, whatever may be their condition in life. But the instruction given in rural districts must also be in farming. As the preamble to the resolutions passed by the Congress puts it, instruction in town household management may be considered as a complement of general education, while farmhouse management is a branch of occupational education.

In regard to instruction in farmhouse management, the following resolutions were passed:

1. *Primary, secondary or higher elementary school education.*

"Instruction in farmhouse management, including the knowledge of family training, must find its way into the syllabus of all rural primary, secondary or higher elementary schools.

"These ideas are to be imparted with exactness, and to be accompanied by practical exercises.

"As far as possible, these practical exercises must be carried out under conditions resembling those in which the students will later on have to apply their knowledge.

2. *Farm instruction properly so-called : Local and travelling classes.*

"It is between 10 and 20 years that girls gain most from instruction in farmhouse management: efforts will therefore be made to set up universally after school instruction of the kind for girls of that age, and to give opportunities for practice, carried out as far as possible by collaboration between the instructor and the student.

"This instruction will be purely on farming subjects. Girls must be given the theoretical and practical knowledge that will make them good farmers' wives. A taste for family life should be implanted, and the tendency of girls to drift into the towns discouraged.

"All types of after-school instruction in farmhouse management are to be recommended: but wherever it proves possible to have a school with continuous instruction, with the use of an agricultural holding, such would have the preference.

"The examinations should not merely be a test of the comprehensive memory possessed by students, but should furnish a proof of their capacities, of their resourcefulness and their suitability for the family life of a farm.

"The local authorities will attach a primary importance to providing accommodation for the travelling schools on strictly hygienic lines, and with the greatest possible degree of comfort, in view of the importance of the instruction and the health of the students and instructresses.

"The length of the courses of the travelling schools must be adequate.

"It is desirable that Study-Circles of farmers' wives should be formed wherever possible, such circles to do everything possible to improve the education and the professional capacities of women in agricultural life by means of lectures and other schemes for popularizing the matter and arousing rivalry.

3. *Training schools of farmhouse management.*

"In these colleges a special type of education will be carried out, adapted to the aim in view, namely that of turning out students possessed with the desire of producing more, of better quality and at less expense, with less physical fatigue, and possessed too of a sense of duty and an elevation of mind.

"The training colleges of farmhouse management should direct their instruction towards the gradual improvement of the methods of the district rather than towards the immediate adoption of the most highly improved methods, the study of which should be reserved for the higher courses.

"It is desirable that the public authorities should encourage in every

way and in as large a measure as possible, training in farmhouse management, both by taking steps to develop State training colleges and in giving support to private training colleges

"It is desirable that side by side with the body of instructiesses in household management, there should be formed a body of women advisors on the subject, nominated by the Government or by agricultural associations, whose business it would be to encourage the teaching staff, to establish harmony in the methods, and above all to keep the instructresses in touch with new ideas."

M. B.

AUSTRIA.

1. LAW OF 29 OCTOBER 1921 REGULATING CONDITIONS OF FARM LABOURERS IN STYRIA. — *Ämtliche Nachrichten des Oesterr. Bundesministeriums für Soziale Verwaltung*, N. 5. Vienna, 31 May 1922.

The chief points of this law are as follows :

The hiring agreement is concluded between the employer and worker, either orally or, on the request of one of the parties to the agreement, in writing. The commencement of the period of work is fixed by the yearly agreements at 1 January and the expiry at 31 December (§ 5).

The length of the day's work is regulated on the basis of local customs. The time of work is usually that of the daylight hours. On an average throughout the year the day's work is of ten hours (§ 10).

In case of need extra hours must be worked. If necessary this also applies to Sundays and festivals and to the night hours. Remuneration for these hours is from 50 to 100 per cent. more than that for the regular hours of work (§ 14).

The year's wage must be divided in accordance with the agreements in such a way that 40 per cent. is allotted to the winter months and 60 per cent. to the summer months. After five years' work without a break for the same employer, the labourer has a claim to a special bonus of 25 per cent. of his last year's wage. If the services have been given for ten years without a break, he is entitled to a further bonus of 50 per cent. of his last year's wage. For every five years more, the bonus increases by another 25 per cent. (§ 13).

If he has remained in the same employment for at least a year, the labourer is entitled to three days' leave on full pay ; if for at least two years to a week's leave ; if for at least five years, then to two weeks' leave on the same conditions (§ 15).

The labourer who is prevented from doing his work by illness or accident, happening through no fault of his own, has the right to full pay whether in cash or kind, as well as to appropriate care and medical treatment for a period of from four to eight weeks. Beyond that period the expenses must be met with the means publicly provided (§ 18). The employer must not assign to expectant mothers work which is clearly dangerous in their condition, nor can pregnancy be a cause for dismissal (§ 19). The agreement can be cancelled either without notice or on a

fortnight's notice, on cause arising which prevents the continuance of the relation, such as acts of violence, serious offences, threats, immoral conduct, etc., and this applies equally to either side (§ 8).

The observance of the provisions of this law is to be a matter for the vigilance of the State authorities. Contraventions are punishable by fines up to 1,000 crowns or by imprisonment up to eight days, and in the case of a second offence provision is made for a fine up to 20,000 crowns or an imprisonment up to 14 days. Money paid in fines is passed to the poor of the communes. Against the decision of the district authorities there is an appeal allowed at the end of fourteen days to the provincial government (§ 29).

M. T.

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2. THE NEW LAW FOR INCREASING THE ALLOWANCES MADE TO THE "AUSDINGER" (RETIRED SMALL FARMERS OR LABOURERS).

The prevailing economic situation incident on the peace has rendered peculiarly difficult the circumstances of those who depend on fixed incomes: and this is especially so in the case of the "Ausdinger" as those agriculturists are called who have handed over their farms altogether to sons or to others, in return for an undertaking on the part of these latter to contribute to the expenses of their maintenance, in a measure definitely fixed by agreement. By this term is mostly meant people of advanced age, either wholly or virtually incapacitated from earning a competence by their own work, who have a home of their own, often a little cottage with a garden, and receive a small regular allowance. By "Ausdinger" is also meant persons of both sexes, who have worked for many years on a farm and receive regularly by agreement a certain sum of money.

With the aim of ameliorating the lot of these people, the National Council promulgated on 27 October 1921 a law for the increase of the allowances paid to "Ausdinger" (*Gesetz über die Erhöhung von Geldausdingleistungen*), to be found in the *Bundesgesetzblatt* of 2 November, 1921, No. 598.

The essential provisions of this law are as follows: If in a contract, agreed to before 1 January 1920 and relating to the transfer of a farm or forest holding, there is stipulated a periodical payment of an allowance to the outgoing owner, which according to the evident intention of both parties should have secured either in full or in part the maintenance of the latter, the interested party is empowered to demand either a corresponding increase of the allowance or a commutation by addition of an equivalent quantity of goods in kind. The same principle is applied to periodical allowances, stipulated by agreement, dated before 1 January 1920, and with similar intention in respect to labourers, as recognition of the long services rendered by these latter on a farm.

The request may also be put forward in respect of an owner who has come into possession in succession to the person originally a party to the

agreement, with this limitation however, that the right to an allowance in that case must appear from the Cadastral Survey.

The court before which the application comes decides on the question according to equitable principles and the usage of the district and locality; in particular it is bound to ascertain if the profits of the owner of the farm are so much larger as to make it possible to impose on him this fresh burden.

In the event of the appreciation of the currency, if, that is, the increased allowance should come to be in excess of the needs it was intended to supply, the person bound by the agreement to make the payment may in his turn make an application for the reduction of the allowance formerly increased.

The district tribunal, in view of an application for increase of the allowance or its commutation into payments in kind, must endeavour to bring about an amicable arrangement between the parties. If this proves not to be possible, it is then the duty of the tribunal to give a ruling, after having heard the evidence of competent persons acquainted with the local conditions. Against the decision of the tribunal of the second instance there is no appeal allowed. As to the question of the incidence of the costs of the legal proceedings, the court decides, with discretionary powers.

The time from which the increase of the allowance applies is fixed by the court.

No application can be made for a fresh increase, and this holds equally with respect to a reduction, before the lapse of at least six months from the carrying out of the former judicial decision increasing the said allowance.

The law is the first of a series of social legislative measures for the protection of persons of advanced age and unfit for work, whose capital or allowances are only on a pre-war basis.

H. KALLBRUNNER.

LAND SYSTEMS

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MISCELLANEOUS INFORMATION.

AUSTRIA.

THE LAW OF 20 DECEMBER 1921 RELATING TO THE MODIFICATION OF LONG TERM AGRICULTURAL LETTING AGREEMENTS.

On account of the continued depreciation of the Austrian currency, it frequently happens that rents due to landowners from tenants holding on long term letting agreements are much lower than the taxes that the owners have to pay on their land, since the rents remain unaltered while

the rate of the taxes has been placed in relation to the depreciation in the currency.

In order to make good the resulting loss to owners, the National Council has promulgated the Law of 20 December 1921, relating to the modification of agricultural long term leases (published in the *Bundesgesetzblatt* of 29 December 1921, No. 270).

The most important provisions contained in it are the following:

The landlord can demand the modification of letting agreements of any kind, in respect to forest or agricultural undertakings, to lands, or to shooting or fishing rights, concluded for a period of more than three years from a date previous to 1 January 1921, if the rent agreed on has become disproportionately small in consequence of the advance in prices of farm products subsequent to the conclusion of the agreement, or in consequence of the increase of the State dues (taxes and supplementary levies) burdening the property and falling heavily on the landlord; and this notwithstanding the original agreement as to the proportion of the same rent.

In judging of the equity of an increase, regard must be had to the proportion in which the landlord and tenant are obliged to invest capital in the farm. In the case of small holdings, it must be ascertained if the tenant, his economic situation being what it is, is in a position to pay a higher rent. In dealing with letting agreements relating to small gardens (*Schrebergärten*), the rent is put up only so much as is justified by the increase in the rates and taxes chargeable on the tenancy and falling on the landlord. Where a fall of prices or a reduction in the taxes takes place, the tenant can demand on his side a reduction in the rent as increased, but not so as to fall below the original proportion fixed. Following on the application of the landlord for the raising of the rent, the district tribunal within whose area the farm is situated or the undertaking is carried on must in the first place try to effect an amicable arrangement between the parties: when this cannot be brought about, the said tribunal is to give a summary decision, after having given a hearing to persons cognizant of the facts of the case.

If the application is favourably received, in default of an agreement between the parties, the district tribunal must rule that the increased rent must be paid from the beginning of the year of the letting agreement following the day on which the application was put forward. If the landlord put forward the request for a rise in the rent within four weeks of the coming into force of this law, the district tribunal, in so far as the circumstances of the case justify it, must recognize that payment of rent was due for the current year of the contract. If the rent for the year of the agreement ended or ending within the year 1921 did not reach the amount that the landlord was called upon to pay whether in State taxes or supplementary levies on the land, or in fire insurance premiums, the district tribunal was to grant the increase retrospectively up to the amount of this sum, always supposing that the landlord made application for it within four weeks of the coming of this law into force.

If the increase of rent is sanctioned, the tenant can legally bring the lease to an end at the end of the contractual year, giving at least three months notice notwithstanding any length of time originally agreed on.

If an application for increase of rent has been granted, no others can be granted in the same year.

If in a letting agreement of the aforesaid kind it is agreed that at the end of the contract the tenant must hand over, or the landlord take over, cattle, tools, forage, seeds, or other requisites at a price fixed, the party who stands to suffer a loss inequitable in comparison with the advantages gained by the other from the contractual relation, may demand a corresponding modification of prices.

Dr. H. KALI BRUNNER.

EGYPT.

THE SUBDIVISION OF LANDED PROPERTY. — CASORIA (Matteo). *Chronique agricole à l'année 1921, in L'Egypte contemporaine*, Cairo, January 1922.

Working from the official statistics as to the division of landed property, M. Casoria notes the fact that Egypt is following the same downward path as the European countries in the matter of the subdivision of land. Kitcheners law as regards holdings of under five feddans (two hectares, ten ares), undoubtedly had a salutary effect, but it could not even so check the downward movement increasingly noticeable.

As a matter of fact in the class of proprietors of from one to five feddans we find :

In 1913 468,628 proprietors : 1,013,364 fedd. average 2.0321 fedd.

In 1920 506,025 » 1,064,137 » » 2.0211 »

Difference 37,397 additional proprietors with a reduction of 0.0110 feddans in the average holding.

Glancing at all the classes, we see :

	1913		1920	
	Proprietors	Feddans	Proprietors	Feddans
Less than one feddan .	942,530	405,595	1,207,694	485,045
From one to 5 feddans	468,628	1,013,364	506,025	1,064,137
From 5 to 10 " .	76,337	528,706	79,767	551,276
From 10 to 20 " .	36,623	505,344	38,707	533,563
From 20 to 30 " .	11,155	271,385	11,866	287,921
From 30 to 50 " .	8,479	327,978	9,780	352,783
More than 50 " .	12,558	2,420,558	13,512	2,261,527
Total	1,566,310	5,472,930	1,866,761	5,536,252

The number of proprietors in each class has perceptibly increased between 1913 and 1920, while the area has remained nearly the same.

It may be noted that in the class of owners of more than 50 feddans, including the large agricultural societies, there has been an increase of one thousand proprietors, against a decrease of 160,000 feddans, which have of course gone to increase the number of proprietors of less than 50 feddans.

The fact that gives food for reflection in regard to the future of land holding in Egypt, considering the discontent due to this extreme subdivision of the land, is the increase in the number of proprietors who possess less than one feddan (42 ares). From 942,530 in 1913 they have risen to 1,207,694, in 1920.

M. B.

MEXICO.

THE ESTABLISHMENT OF MILITARY AGRICULTURAL COLONIES. — *Diario oficial*, No. 59 Mexico, 14 November 1921.

By the decree of 30 September 1921 regulations are prescribed by the Federal Government of Mexico as to the agreements for purchase and sale of blocks of land, intended for the establishment of military agricultural colonies.

These colonies are formed with the object of encouraging and increasing the colonization of the country, and at the same time of rewarding certain classes of soldiers belonging to the First Reserve of the Army for services rendered to the Republic.

These soldiers have the right to acquire blocks of land, the price of which is divided into 20 annual payments, due at the end of each agricultural year beginning from the second of the purchase, without payment of interest.

The decree enacts that the soldiers while remaining in the colony shall be subject to military discipline, up to such time as they are finally discharged from the army. On the same terms those who are still serving in the army before transfer to the reserve will be able to take part in these colonies.

Administrative Bodies — The administration of the colonies is in the hands of the office of the Secretariat of War and Marine, including the Chief of the Department of the First Reserve, and the Section of Military Agricultural Colonization. To these last falls the business of the formation, the organization, the development and the oversight of the colonies. The office of the Secretariat of War and Marine has the power of fixing the prices and conditions of the purchase of lands bought for colonization, on the basis of negotiations made in regard to it and of information received: such information will then be passed on to the Section for the Colonies of the First Reserve. - A specially appointed Technical Committee will direct the work of laying out, taking care that the colonies are of a regular shape, corresponding to a certain symmetry in their division. In the middle of the area to be colonized, or wherever

is most convenient, there will be reserved a space of 50 hectares, if possible in the shape of a square, intended exclusively for town plots. After fixing the portions of this area to be used for public buildings, squares, markets, etc., the remainder is divided into blocks.

The assignment of the blocks of land is done by a system of drawing lots, and the size of them is subject to modification, whenever the Technical Committee require it.

Organization of the Colonies — The number of persons composing each colony is not to be less than 50, nor more than 200, unless there are special reasons justifying a larger or smaller number.

To avoid any want of harmony among those living in the same colony, the law enacts that, except in the case of there not being enough persons of one kind, each colony is to be occupied by persons having the same military rank. To meet this need three classes of colonies are instituted for three different grades of officers.

These colonies are made up of lots, of which the maximum area is as follows: 30 hectares of irrigated land, 30 of land depending on rainfall, and 150 of pasture for officers of the first grade; 20 hectares of irrigated land, 30 of land depending on rainfall and 100 of pasture for officers of the second grade; and 15 of irrigated land, 30 of land depending on rainfall and 100 of pasture for officers of the third grade.

Conditions for Obtaining the Assignment of Lots of Land. — To obtain a grant of land the applicants must show: (a) that they belong to the First Reserve of the Army; (b) that they do not possess sufficient means to build up an independent position; (c) that they are twenty years of age, if single, and eighteen, if married; (d) that they have a good previous record. An applicant who fulfils all the conditions required by the law is granted the right of purchase of a lot of land in one of the colonies, and if possible in the colony for which he has indicated a preference.

Inheritance. — In the case of the death of a colonist in full enjoyment of his rights, his heirs will have power to carry on agricultural work and to represent the deceased in everything relating to the obligations he may have incurred towards the Government. With this intent the legal status of the heirs is regulated according to the municipal law of the place where the inheritance is entered on. If any colonist can no longer devote himself to working the land, he may designate a person competent to replace him, or he may request the authorities to transfer his lot. In both cases the decision rests with the Secretariat of War.

In the same way, if the heirs of a colonist are not competent to bring the land fully under cultivation, they can request the authority to grant the lot to some one who undertakes to fulfil the contract with the Government.

Lands Suitable for Colonization. — Military agricultural colonies will be established in localities that offer the best conditions for their development. In effect, the law declares suitable for colonization: (1) state lands situated in the fertile zones of the different States of the Republic, where the fertility, water supply, and nearness to markets and railway

stations, all conduce to successful agricultural development; (2) land adjudicated to the Federal Government, either freely or with charges attached, granted for the purpose by the Government itself; (3) country estates and the lands of private owners suitable for farming and bought by the Government for colonization.

According to the Decree the land is to pass to the colonists free from any kind of burden. Where there are necessarily mortgage charges, it is provided that to avoid all possible losses to the colonists, the debt is to be discharged by agreement with the creditors in the way least inconvenient to the Government.

If the lands acquired are national or form part of the land adjudged to the Federal Government, their transfer for colonization remains subject to the rules laid down by the Government itself, in accordance with laws relating to the matter.

Whenever there is not a sufficient extent of land suitable for colonization to meet the applications, the lots of land will be reduced in proportion to the grants made; but the colonists will retain the right to the full grant, when the Government has acquired land sufficient to meet all demands.

Conditions of Payment for Lands Bought. — The colonists must undertake payment for the allotment made to them in twenty annual instalments, as we have already mentioned, proportionate to the amount of their debt. In the meantime they will receive provisional title-deeds, which will be exchanged for deeds of full possession when they have made the last yearly payment, thus amortizing the price of the land. This amortization must be made in coin having legal currency; but the colonist has the option of discharging the debt to the Government even before the limit of time is reached, without however any discount or reduction of the total sum payable.

The security given by the colonists for payment is the value of the land and of the agricultural implements and machinery belonging to it the property remaining burdened with this obligation, which has priority over any other debt.

Rights of the Colonists. — The colonists have the right to take possession of their lots, and of the agricultural implements, in accordance with the agreement made; to receive what is due to them, to the extent and in the form prescribed by law; to solicit from the Government the gratuities necessary for the expenses of working their lands; to apply to the Secretariat of War and the Marine to send regularly agricultural experts to give instruction to the members of the colonies in modern methods of cultivation and in remunerative agricultural processes; to ensure the supply of elementary education and the means of setting up a public library; to request from the Government, through the medium of the Secretariat of War, the necessary advances for the expense of removal of themselves and families.

The only sums repayable by the colonists are those intended for getting the land into order and for buildings.

Obligations of the Colonists. — The colonists are under the following obligations : to cultivate their land intensively ; to make their payments punctually according to agreement ; not to cut the trees, nor to destroy the fences ; to begin working the land not later than thirty days after it is assigned to them ; to fence it at the end of five years if it is more than 50 hectares, and in three years' time if it is of less extent ; not to alienate nor to encumber in any way the land, the agricultural implements or machinery received from the Government until they have paid full value for them ; and finally to register their deeds of ownership.

Further within the first five years the colonist must keep at least one half of the land in full working, and must complete the cultivation of it in the following five years. If this stipulation is infringed it may entail deprivation of that part of the land which has not been turned to account. If in two consecutive years the annual payments are in arrears without good reason, the colonist will be deprived of the grant of land. Once this deprivation is announced, the land may be sold, on the conditions laid down by the law, to anyone who makes the application with a proper claim, provided that he undertakes to pay in full and in the same manner the price which was paid by the former owner for the land, for the improvements made in it, and for the implements.

During the time that the colonists remain in the debt of the Government, the blocks of land granted to the members of the colonies are exempt from any kind of seizure, and this exemption includes the implements, the agricultural machinery and the animals required for field work.

The first colonists can set up in each colony a Council of Management composed of three members, who will make it their business not only to direct the development on commercial lines, but to administer the colony and to supervise the conduct of the persons composing it.

In each colony there will be an inspector, nominated by the Department, with the approval of the Secretariat of War, whose functions will be primarily to represent the Federal Council at the Council of Management, to watch the progress of the colony, and to safeguard the interests of the Government in the colony.

Advantages Enjoyed by Colonists. — The colonists of the military agricultural colonies will enjoy, for ten years, the following advantages :

1. Exemption from military service, provided that such service is not required for foreign war ;
2. Financial assistance, the amount of which will be fixed by the Secretariat of War, for the purchase and transport of building materials ;
3. Prizes awarded by the Secretariat for exceptionally productive farming, and special assistance in the introduction of new crops, a feature of immense importance to the progress of the colonies.

The Inspector of Colonization is to exercise vigilance to ensure that the Government gratuities are used for the maintenance of the colonists, informing the Department in the case of their being diverted from the object laid down by the law, or not being properly utilized.

With the aim of forestalling difficulties that may arise from the

shortage of articles of prime necessity, or from a sudden and extraordinary rise in the price of food, it may be made obligatory for the colonists to establish a co-operative distributive society with a fixed capital, which will be advanced by the Secretariat of War. E. F.

FRENCH PROTECTORATE OF MOROCCO.

FRENCH COLONIZATION IN MOROCCO. — L'ADREIT DE LACHARRIÈRE (I.): La Colonisation française au Maroc, in the supplement of *L'Afrique Française* Paris, April, 1922.

French colonization in Morocco presents great difficulties, from the fact that the Morocco Berber is much attached to his land, and that native property is established, in spite of deceptive appearances, on a very clear title. Without going into the theory of property in Moslem law or in Berber usage, we may say that lands held collectively are those which lend themselves most readily to the official establishment of a colony. It is in no way a question of despoiling the Djemaas owners, but these joint holders can be brought to form some idea of the advantages that will accrue to them from the turning to account of a portion of their patrimony which up to now has been unproductive. This intervention of authority must however in no case become an exercise of pressure, and in the words of the Resident General "in such matters, we cannot display too much caution. To go too fast is to risk spoiling everything: we have to reassure minds that are too prone to see in this taking up of tribal lands the first signs of a forcible seizure. To reassure these natives, not only by words but by deeds, to give them a guarantee that we are not anxious to dispossess them but rather to make them share the economic advantages that we bring with us, is not work that can be done in a hurry."

The point of view of native policy, important as it is, is not the only one to be considered. The colonist himself has to be protected against undue enthusiasm, and precautions at first sight hampering, but calculated to ensure the end in view, are essential to the prosperity of the country. The Resident General lately pointed out, in response to an enquiry as to the advantage of directing a stream of emigration towards Morocco, that administrative action must here too proceed with extreme caution. "In regard to immigrants who propose to take up agriculture, the scarcity of State lands, the only land at our disposal at present, the high price of building materials, of tools, and of transport, all these things have combined to make us relinquish the idea of free allocation of blocks of land for colonization; a gift of that kind would only be a trap, since the purchasing price of the land represents only an insignificant part of the capital required for bringing the holding under cultivation. In the present state of the economic organization of Morocco, badly equipped as it still is as regards means of communication, the Committee of Colonization were of opinion that the small holding was not a proposal

in which they could interest themselves, and an exception could only be made in favour of suburban allotments, confined to the production of vegetables, poultry, etc. "

The fact is that while the natives can carry on life with the equipment of a less developed civilization than that of Europeans, these latter cannot adapt themselves to the want of means of communication, still a very serious matter. Nor can they adapt themselves to a precarious hold on the land, with which the son of the soil is quite satisfied. It is not so long ago that transactions in real property in Morocco used to assume the appearance of a farce, ending in the complete discomfiture and robbery of either the colonist or the native.

However this may be, at the same time as the Resident General gave his attention to the road system, he put land holding on a sound basis (Dahir of 12 August 1913 on land registration) and afterwards regulated the alienation of land held in joint possession (Dahir of 27 April 1919). This Dahir provided for three methods of utilizing these lands for Europeans: letting, sale, and co-operative holding.

As regards leases, serious colonists, really desirous of bringing the land under cultivation, can get from the supervising authorities all information that will put them on the right track and prevent them from wasting time and capital. This action of the local authority is especially marked in the case of the landholding Djemaas. Every Djemaa, however small a group it represents, has the power to let. Leases of less than three years can be arranged mutually: longer leases are submitted for approval to the Council of Wardship, as well as to formal adjudication, but this is as much simplified as possible, and the right of preference recognizable for everyone who by his personal efforts has maintained a special interest in the property now being alienated, safeguards the prerogatives of the first candidate to the lease. As a final advantage, the present legislation permits of the changing of the ten years' lease into permanent possession.

As regards the sale of lands held in common, they can only be bought by the State, a measure ensuring the colonists against excessive heightening of the price of land. These lands are bought by the State at their fair value, and are then reassigned to the colonists at prices which vary according to position, and condition and character of the soil, but which cannot be considered prohibitive. The State lands, whence the majority of the blocks of land for colonization have so far been taken, have been granted at prices much lower than 7 or 800 francs per hectare, a figure necessarily reached in the case of purchase from private individuals, and considered excessive: such prices apply to uncleared lands. The valuation of the blocks of land has moreover always been done by committees including not only the officials of the departments concerned, but also representatives of the agricultural colony. The majority of these blocks have been granted at about 200 francs a hectare, not one has been as much as 400 francs, and the concession by which the holder can discharge his debt in ten yearly payments without interest con-

stitutes an unquestionable advantage. The purchase and reassignment of the collective lands by the State allows of the grouping of average sized blocks in such a way that the holders benefit alike by the advantages of association and by the facilities that the Protectorate has taken pains to provide, namely paths, roads, wells, postal and telegraphic facilities, in fact, the economic apparatus necessary to the life of an organized centre. More than that, the colonization areas, formed by the purchase of lands owned collectively, are so planned as to allow of the placing side by side of at least ten average sized blocks of land, this after any necessary exchanges and re-groupings. This ruling idea has never been lost sight of, and it is in this way that it has been possible to create settlements such as those of Petit-Jean (5,000 hectares), Beni-M'Tir (3,200 hectares) Hadj Kadour and Ait Harzala (4,700 hectares), Bethma Guellafa and Douiet (7,000 hectares). In this way the colonists have every facility for joint purchase of the improved implements necessary for carrying on agriculture on business lines, to bring the soil under cultivation in a shorter time, and to increase the yield. As regards motor-culture, the Protectorate has introduced a system of bounties paid to farmers who are using motor machinery. Although the employment of these machines ensures rapid work, and therefore increase in the quantity of land sown with corn and reaped at the right moment, it cannot, at least in present circumstances, be considered economical, owing to the high price of motors, the requirements of mechanics, etc. Even if the machines are grouped in sets, and a repairing shed is available, the net cost per hectare considerably exceeds that resulting from the use of draught animals.

Since 1918, the year when official colonization began, the State has granted to colonists 48,000 hectares, the allotment made in each year being as follows :

1918	7,215 hectares
1919	11,246 "
1920	11,191 "
1921	18,272 "

47,924 hectares

Out of these 47,924 hectares, 37,479 have been granted to colonization on a medium scale. On the one hand, as was said above, a too hasty development of small holdings would be premature, since the high price of building materials would impose on the colonist investment of capital out of proportion to the returns from the soil : on the other hand, colonization on a large scale, that is of from 400 to 3,000 hectares, is, generally speaking, harder to accomplish, because of the extensive areas and large capital needed. On the contrary, to farm lands of 200 to 400 hectares which is what is meant by colonization on a medium scale, requires no very extraordinary outlay of funds. The conditions of admis-

sion into the country for 1920 fixed the capital which a candidate for a block of land must have at his disposal at 70,000 francs.

We may add that the blocks of land are given out, by a system of drawing of lots at different times, as follows: 25 per cent. to disabled service men. 50 per cent. to persons who have lived in Morocco for two years, and who though they came with the intention of taking up agriculture, have not yet found an opening 25 per cent. to immigrants.

M. B.

ROUMANIA.

THE RESULTS OF THE AGRARIAN REFORM

In the course of a speech made during the reception in his honour at the International Institute of Agriculture, 2 May 1922, M. Alexandre Constantinescu, Minister for Agriculture of the Kingdom of Roumania, described the results of the agrarian reform carried out in his own country in the following words:

" Fifty years ago, Roumania was wholly a country of large estates, I might even say of latifundia, for thousands of hectares of cultivable lands were concentrated in the hands of the same proprietor. In consequence of the agrarian legislation which has since been passed, and especially since the last law of 1918, now in course of execution, the character of landed property has entirely changed. As a result of this recent law and by the stroke of a pen, five million hectares of arable land have passed from the hands of the large owners into those of nearly 1,500,000 peasant heads of families. I am hoping that this year in my capacity as Minister of Agriculture I shall have the satisfaction of seeing the final accomplishment of this great agrarian reform. When that is done, out of a total of 13 million hectares of arable land, possessed by Greater Roumania, 12 million will have definitely passed into the hands of about four million peasants, in separate lots, varying from one to five hectares according to the region and the density of the population. One million hectares only will remain in the hands of about 6,000 owners, an average of from 100 to 200 hectares per head; their estates are no longer large but medium sized only, and a tendency is noticeable among these owners to sell the remaining land to the peasants, who display great eagerness to purchase.

" Thus Roumania, formerly a land of latifundia, has become in 1922 virtually a country of small holdings.

" These far-reaching changes, though dictated by social requirements, have for the moment an unfortunate disturbing effect on the economic system of the country, an effect taking the form, perhaps for a decade, of a reduction in the total production of Roumania. Time must necessarily be allowed for the formation of peasant associations, co-operative societies and their federations. The development of these organizations on a solid foundation is proceeding rapidly enough for them to come in their turn to replace, both as regards capital and as regards application of

science to agriculture, what has been lost to us by the disappearance of the large owner.

"This temporary diminution of production is largely balanced even today by the solidarity resulting from the great measure of land reform — a solidarity which is our best guarantee that in a short space of time, in an atmosphere of social peace and fraternal concord, we shall not only regain what we formerly had but that also far more will be added to us".

SWITZERLAND.

CONCILIATION COMMITTEE ON LAND TENURE. — *Le Paysan Fribourgeois*, No. 17. Fribourg, 13 June 1922.

In consequence of the extraordinary and rapid fall of prices, the farmers have found themselves in an abnormal position. The leases concluded on long or short terms do not correspond to the actual yield of the land.

In its session of February 1922 the Federal Council, following on a question that had been asked, discussed various measures which might receive consideration as methods of rendering the agricultural crisis less acute. The representatives of agriculture supported the idea of bringing the rents of the lands into relation with the price of the principal agricultural commodities.

On the proposal of the Directorate of the Interior and of Agriculture, Conciliation Committees were instituted with the object of giving the farmers the opportunity of discussing the conditions of their leases in the presence of experts. These committees will hear both parties concerned on the subject of the difficulties arising out of the leases, and will endeavour to enable them to come to an arrangement that will take account of the present day conditions of agricultural work.

These committees are three in number. Each is composed of seven to nine members, sitting at the chief town of the district. For each case under consideration the committee must consist of three members, of whom two are drawn from the district in which is situated the land that is the object of conciliation.

M. T

MISCELLANEOUS QUESTIONS

AUSTRIA.

THE CULTIVATION OF ALLOTMENTS DURING THE WAR.

BY DR. HERMANN KALLBRUNNER

During the war, difficulties in the food supply of the people occurred, at first only here and there, but afterwards more and more frequently, and with more and more serious results.

Even a short time after the beginning of the war, in August 1914, a considerable shortage in wheat and barley was experienced, in consequence on the one hand of the closing of the frontiers by the neighbouring belligerent countries, to say nothing of the blockade and the cautious attitude adopted by Italy and Roumania, at the time still neutral, and on the other hand of the larger consumption occasioned by the war. Of importance too were the enormous losses of flour sustained by Austria from the Russian invasion of Galicia with its great warehouses, and the losses of the harvest stocks of that region. The deficiency of breadstuff cereals became more and more marked, in spite of numerous attempts to increase production (1).

In regard to the supply of vegetables grave difficulties had to be overcome: the extensive importation of garden vegetables, more particularly the early ones, from southern countries, notably Italy and Egypt, had stopped from the beginning of the war, and the territory round Görz, a large area of production of that kind, was devastated by war: vegetable growing suffered from want of labour, of draught animals, of seeds, of fertilizers and requisites, and even the production of potatoes fell off with the reduction of the area under cultivation and of the yield per hectare (2). An attempt was made partially to remedy this difficult situation by promoting the growing of vegetables.

(1) See: *International Review of Agricultural Economics*, November and December 1921 KALLBRUNNER, Measures adopted in Austria for the Encouragement of Agriculture during the War. — DENKSCHRIFT ÜBER DIE VON DER K. K. REGIERUNG AUS ANLAß DES KRIEGES GELTENDEN MASSNAHMEN, 1 volumes, Vienna, 1915-1918. — DIE KRIEGSGELTENDEN VERKEHRSANSTALT. IHR AUFBAU UND IHR WIRKEN, Vienna, 1918

(2) On an average from 1903 to 1913, 85,167 hectares were cultivated in potatoes in Lower Austria, and in 1918 only 68,619 hectares. The yield per hectare fell from 712 to 156 quintals. (See: ANBAUFLÄCHEN UND ERNTEERGEBNISSE IM GEBIETE DER REPUBLIK ÖSTERREICH, IM JAHR 1918 Vienna, 1919).

Efforts in this direction fall into two groups, according as they have reference to the small kitchen gardens in general, or to the *Industriegärtner*. The small kitchen gardens are cultivated directly by individual workers or employees, and are intended to render easier the problem of individual provisioning, the impulse being not infrequently given by the commune, the State, or an employer. The *Industriegärtner* on the other hand are cultivated as the appurtenance of an industrial undertaking and are intended to facilitate the provisioning of the workers belonging to it. A characteristic factor common to all these efforts, inspired as they are with a lofty moral ideal, is that here, in contradistinction to what takes place on ordinary farms, the aim is not to get the highest and most lasting money return from the land, but to achieve the largest possible production.

The small market gardens may in their turn be subdivided into two groups, urban and rural, according to locality and method of working.

§ I. MARKET GARDENING WITHIN CITY AREAS AND MEASURES FOR INCREASING IT.

The small market gardens in the cities are rarely more than 600 square metres in extent. They are generally called *Schrebergarten* after Dr. Schreber, a physician who died at Leipzig 10 November 1861 after having done much to promote the creation of such gardens in the interest of the public health.

It was not everywhere easy for the small cultivators to obtain the necessary land. The land on the outskirts of the cities favourably situated from the agricultural point of view, was always cultivated to its fullest capacity, since the very short distance from the market made production always profitable, even though proportionately high expenses had to be met for labour and draught animals. Professional vegetable growers had for a long time kept the best lands in their own hands. Hence for citizens anxious to work on the land there only remained land which being for some reason or other unsuitable or less suitable for agriculture, remained uncultivated or only used for extensive cultivation; such as building land, which was often used as a place for shooting rubbish, and lands difficult to work, either dry, too shady or difficult of access; finally lands in the immediate neighbourhood of the cities not bringing in returns to private persons, being preferably used by trippers for rest or amusements, such as cemeteries long disused, lately broken up woodland, former exercising grounds, encampments, steep slopes, places whence material was taken for making roads and railway platforms, demolished areas, brickfields, etc. Naturally each city presented its own special circumstances.

It will easily be understood that the "land hunger" was at its height in Vienna, where absolutely barren deserted spaces were transformed, by dint of unceasing toil, into flourishing gardens. Stones were picked off the ground, in many cases the soil was passed through a sieve, street

sweepings were brought, kitchen and other refuse was tried for improving the soil. Hard stiff land was treated by sprinkling sand and ashes. Clearly all these operations required the application of effort that would not have found an adequate recompense if it had been supplied by paid labour, and not voluntarily by small cultivators in their spare time.

These lands were taken up with the consent and encouragement of the Government, and also that of the greater number of the communal administrations, which, recognizing the importance of the movement, supplemented these efforts, and even took the lead with most praiseworthy schemes. Individual manufacturers also considerably assisted these undertakings.

The following decrees of the Austrian Government among others are important, intended as they are to direct on the one hand the utilization of all cultivable land for food production, and on the other the acquisition of land by small cultivators: the Decrees of 15 February 1915, of 3 March 1915, of 21 October 1915, of 1 March 1916, of 11 October 1916, of 26 February 1917, of 31 January 1918 (1). The substance of these measures was as follows:

The district authority may order, with the object of ensuring the food supply of the large centres, that agricultural lands situated in the neighbourhood of these centres be given up to the cultivation of vegetables or potatoes, and may assign these lands to communes, to large business undertakings and establishments, to individual growers or to associations of small vegetable growers.

Before the decision is taken, the owner of the land must be a party to it. At the time of the assignment of the land, the authority must issue instructions as to the kind of cultivation to be followed, and the amount of rent to be paid by the party to whom it is assigned.

The land must not be left untilled. All forage growing on it must be utilized.

Within the limits of what was possible, and in spite of many difficulties, efforts were made to carry out these regulations, and these efforts usually succeeded when there were small cultivators ready to put the land under cultivation.

The execution of the work was not in reality always easy. As the new cultivators came only in part from rural districts, they were not to begin with skilful in the handling of implements and they lacked experience. They endeavoured to gain such experience by watching as far as they could their more capable neighbours; then by studying manuals of horticulture published by specialists of the different Government offices. Of more utility were the efforts of the organizations among the small cultivators, which by means of courses and instructive articles in the journals of the associations tried to increase the knowledge of their own members. The public authorities lent their aid to this work in various

(1) Contained in the *Reichsgesetzblatt*, Nos. 38, 55 and 317 of the year 1915, Nos. 59 and 312 of the year 1916, No. 74 of the year 1917 and No. 37 of the year 1918.

ways. The courses were very well attended. Thus the courses for the breeding of small live stock, held in close connection with the courses in vegetable growing, were attended between 1 August 1914 and 1 June 1916 by 23,754 persons. Each course lasted four weeks and was usually held on a kitchen garden or on premises for the rearing of poultry or small live stock.

Another difficulty in the management of small gardens was the lack of implements. The associations of small cultivators tried as far as possible to remedy this by the collective purchase of tools and necessary articles. Naturally mutual assistance among neighbours and the spirit of enterprise greatly contributed to minimize this inconvenience, and generally speaking throughout the work the spirit of co-operation was displayed to great advantage.

A serious hindrance to the work of the small growers was the great distance, especially in Vienna, between the homes and the market gardens. It was only possible for a few to get strips for gardens at all near to the town area. The majority had to walk a long distance in the city and then through the market gardens to come to their own bit of land. And since the work was done as has been said only in spare time, it was absolutely impossible for many to make provision for work during the week, which naturally seriously prejudiced the proper development of the crops. Another inconvenience was that the town houses were not fitted up for these accessory occupations: there was no room to put the tools, the produce and the poultry.

Many of the gardens created *ex novo* suffered from lack of water. A certain number of communes laid-pipes to the new belts of land put under cultivation, allowing the use of the water either free or for a trifling payment. At Vienna, for example, the water could be had for nothing by the small cultivators and by the new arrangement of the charges for the use of water of 1922, a reduction of 50 per cent. was made for *Schrebergärtner*.

During the war there was at times in Austria a very great scarcity of good seeds, the importation from other countries having practically ceased. The Government showed most commendable activity in encouraging seed production.

The provincial administrations took common action in distributing pamphlets and holding courses on the subject. With the object of meeting this temporary scarcity of seed, an agreement was concluded with Germany, Holland, Denmark and Bulgaria, intended to provide for the more urgent need. It was rightly felt that the small cultivators, even those who most inspired confidence, did not supply a guarantee of the entirely scientific employment of the seeds and rearing of the vegetable seedlings, and consequently several communal administrations entrusted such nursery work to the staff of their gardens, letting the small cultivators have the young plants either gratuitously or on payment of a small contribution to the expenses. In this way the best use of the precious seeds was ensured and the small cultivators obtained young plants of good quality.

To ensure the physical powers of resistance of the small cultivators, essential if they were to accomplish their rough work, they were allowed supplementary rations of bread (supplement for persons doing heavy work).

The kitchen gardens were managed in a thoroughly individual way, according to the taste and the knowledge of the owner, but above all in conformity with his needs and the productive capacity of the soil. Energetic *Schrebergärtner* could lift two and even three crops a year from the soil; others confined themselves to one crop. A large part of the area cultivated was given up to potatoes, the largest part to vegetables. Many who held the land on a long term agreement planted fruit-trees. Many built little huts, originally meant only for putting away tools. But it was often necessary to watch the gardens at night; in fact the small cultivators took it in turns to do so in the season of the ripening of the fruit and maturing of the vegetables, and for this reason and from the wish to live all the summer on their allotments, these huts were little by little enlarged and put into better order. Once such a tendency made its appearance, the desire for one's own house on one's own ground together with the ever increasing lack of accommodation led to a general movement towards taking up one's abode on the market gardens. This movement developed and gained considerable importance in Austria especially in the years succeeding the war, and has produced satisfactory results at the present time, more particularly in the environs of Vienna, though results small in comparison with the need.

The same movement is naturally, on many sides, closely connected with the schemes for agrarian reform and home colonisation (1), questions constantly discussed and examined during the war, particularly in the interests of the better employment of the disabled service men and widows. This led to the formation of a National Federation for Small Holdings for Families of ex-Service Men (*Reichsverband für Kriegerheimstätten*) (2), created 30 April 1916 by the initiative of the fourth Austrian Economic Conference (held from 5 to 7 February 1916).

The small cultivators could not of course derive benefit from the steps taken by the Government to maintain agriculture properly so-called in working order, with the exception of the measures designed to ensure the supply of seed potatoes, in which their needs were to some extent taken into account.

Excellent results usually followed from the steps taken by the local

(1) VOGEL: Die agrarstatistischen Grundlagen einer Innenkolonisation und Erhöhung der landwirtschaftlichen Produktion in Oesterreich nach dem Kriege, in *Statistische Monatschrift*, 1917 — VOGEL: Innenkolonisation und Landerbeiterfrage in Oesterreich nach dem Kriege Berlin, 1918.

(2) SAGMEISER: Kriegerheimstätten Vienna, 1910. — RINDL: Kriegsinvalidenansiedlung, in *Arbeitsnachweis*, 1918, p. 59. — MARSHALL: Fürsorge für Kriegsbeschädigte in Böhmen, Prague, 1916 — KATJBRUNNER: Measures taken during the War to Maintain the Supply of Agricultural Labour *International Review of Agricultural Economics*, No. 34, 1922.

authorities. These bodies made available many tracts of their own land either gratuitously or at very low rents, allowed the free use of water from the town pipes, and furnished watchmen to prevent as far as possible thefts from the gardens. The tracts belonging to the communes were always fenced and supplied with water-pipes. Street-sweepings, too, which contain much fertilizing matter, were collected and brought to the cultivators on payment of a small sum.

Disregarding superficial estimates, no trustworthy statistics are in existence on the number of the cultivators, the areas cultivated by them and the resulting production, except the figures compiled by the Ministry of Railways with regard to the railway employees. It is difficult to furnish trustworthy statistics, even limited to the chief points, among other reasons because it is not easy to distinguish the *Schrebergarten* from the domestic garden, which is today for the most part given up to the growing of vegetables in a much greater degree than before the war.

Various associations sprang up with the aim of giving information and promoting mutual aid amongst cultivators and poultry breeders. These were gradually transformed into societies on more formal lines and of wider scope and were finally united into large and powerful federations with branches, selling agencies, etc. According to a report of the Office for Market Gardens (the section of the Town Council of Vienna which concerned itself exclusively with market gardening), in the autumn of 1918, there were in existence about 90 associations, some united into the *Verband der Schrebergartenvereine*, the others into the free union of associations of market-gardeners. Later on these organizations combined. The federations published journals, or utilized as their own organs periodicals that already had been in existence some time (1). They organized besides, for the most part with effective support from the public authorities, courses, conferences, exhibitions, excursions, experimental plots, etc.

§ 2. THE DEVELOPMENT OF SMALL MARKET GARDENS IN VARIOUS CITIES.

(a) *Vienna*. - Small market gardening was developed on the largest scale in Vienna, where nearly two millions of people had to be fed, while the provisioning zones of the city became more and more restricted in the course of the War (2).

(1) Among these journals may be mentioned: *Der Siedler*, organ of the "Verband der Schrebergartenvereine" of Vienna; *Zentralblatt für Kleintierzucht und Gartenbau*, of Vienna; *Mein Sonntagsblatt*, of Neutitschein; *Der Kleintierhof*, of Innsbruck; *Die illustrierte Tier und Gartenwelt*, of Prague; *Die illustrierten Blätter für Kleintierzucht*; *Zeitschrift für den Obst- und Gartenbau*.

(2) The supply zones of Vienna, in time of peace, stretched across the frontiers. First from the blockade, then by the closing of the Hungarian frontiers, and subsequently of the different provinces of the Empire, Vienna had at last to have exclusive recourse for provisioning to Lower Austria, a zone already densely populated and not very productive.

The land used for making the gardens stretched round the city, and was estimated by the director of the Vienna Office for Market Gardens, in 1920, at 17 millions square metres in round figures. The number of families which profited from these plots is calculated at 50,000, the number of persons taking part in the gathering of the produce at about a quarter of a million.

The organization of the market gardens originated in a very modest way. On an area of about one and a quarter hectares, the *Naturheilverein* in 1903 began under Bromold to make market gardens in Purkersdorf and a year after to build huts. In 1911 the first market gardens in the immediate neighbourhood of the city were made in Rosenthal, in the 13th communal district, where today there are in round numbers 5,000 fruit trees and 12,000 fruit bushes producing on an average 100,000 kilos of stone fruit and from 60,000 to 70,000 kilos of bush fruits. In 1915 the municipality of Vienna allotted land for 3,000 market gardens. At the same time the Ministry of Instruction took steps to introduce war kitchen gardens for schools, which were intended not only for the production of articles of food, but were also to serve as centres of instruction and education, and as providing a resource for boys left without any one to look after them.

In 1908 there were already in Vienna 23 principal colonies with 3,200 larger gardens and 4,500 smaller, not to speak of many other ones scattered here and there.

The production of the *Schrebergärten* of Vienna is estimated by Siller at 150 trucks in round figures of vegetables and potatoes for 1915, and for 1920 at 4,500 trucks with a value of 135 million kronen (1). He calculates the returns from the breeding of animals at 200,000 fowls, 12,000,000 eggs, 250,000 rabbits, 5,000 goats and 750,000 litres of milk. These quantities, though far from meeting all the needs of a city of two million inhabitants, are nevertheless capable of exercising a very marked influence on the provisioning of the population, and on the fixing of prices, since it has been proved that in cities where the market gardening movement has had less development, other circumstances being equal, prices of vegetables are higher.

The efforts of the civic authorities under the direction of the burgo-master, Dr. Weiskichner, were on a large scale and were attended by success. As early as the summer of 1914, arising out of the vote on housing measures, a detailed programme was formulated and carried out, of course with the alterations that had become necessary. A department was created in the municipal administration which made available for the purpose greenhouses and gardens belonging to the city. For very small rents pieces of land, water, implements, street-sweepings were to be had; fences were made and water pipes, artificial manures, plants and seeds were allotted either gratuitously or at cost price; the police were instructed to

(1) See SILLER: *Kleingartenbau*, in *Ernährungshunde*. Vienna, 1921, and SILLER: *Wiens Schrebergarten*. Vienna, 1922.

do all in their power to preserve the market gardens from thefts. For the encouragement and mutual instruction of the cultivators, but also with the aim of demonstrating the importance of the movement to all citizens, exhibitions were arranged, at first on a modest scale, then, beginning from 1919, annually on a large scale in the town hall.

Other public bodies supported the movement. Thus the military authorities granted part of the drilling grounds, and the Imperial Household granted extensive lands belonging to the Crown. Besides, institutions of public utility and even various private institutions did their best to help the movement on, having the interest of the workers at heart. Among others there deserve mention the Emperor Francis Joseph Jubilee Foundation for Workers' Dwellings and for Vienna Welfare Schemes (*Kaiser Franz Josefs Jubiläums-Stiftung für Volkswohnungen und Wohlfahrtsanrichtungen in Wien*), maintained by support from the public funds, which as early as 1903 had set aside a large belt of land for market gardens and had increased it during the war; the Nussdorf Brewery (*Nussdorfer Bierbrauerei*), the Institution for Insurance against Workmen's Accidents in Lower Austria (*Arbeiterunfallversicherungs-Anstalt für N. Oe.*). Some army divisions made vegetable gardens in the barracks and on the drilling grounds (1). Naturally all the gardens had an incomplete and provisional character. The fences and huts had a primitive appearance, which however improved as years went on. The parts where fruit trees have been planted make a very pleasing impression today.

In other cities there was a development similar to that in Vienna, but naturally on a much smaller scale. The extent of the development depended largely on the greater or less needs of the population, and these in turn depended on the productiveness of the surrounding country, and also on local circumstances.

(b) *Brunn*. — The municipal authorities of Brunn did much to encourage the movement in favour of market gardens (2), but since the supply of vegetables in the city was always relatively adequate there were no results proportionate to their endeavours. Thus for example on a deserted cemetery, 2.5454 hectares in extent, the municipality laid out 74 gardens, fenced and with water laid on in such a way that to every four gardens there was a standpipe. It is worth mention that the greater number of the cemetery trees were preserved and that there was in the scheme some consideration for the beauty of the countryside.

Another site was put into order on a rubbish dump, all the work of laying it out being undertaken by the town gardeners; 86 allotments were here made out of an area of 2.2618 hectares, and these were for the

(1) An interesting scheme was projected in 1915 by Professor Bauer, designed to make use of the heat contained in the condensation water of the large electric works of the city of Vienna, producing 150,000 horse power, by making the water flow through a system of pipes to the market gardens, so as to bring the plants on, especially in the colder seasons. But on account of the expense involved it was not possible to carry it out even on an experimental scale.

(2) KRONFELD: *Zur Geschichte der Schrebergärten*, in *Oesterreichische Gartenzeitung*, Vol. 12, No. 4, 1911.

most part given to town workmen (1). Single fields and plots of land were also granted to workmens' associations which distributed them amongst their own members. For the most part no rent was payable for the first years of holding, as a counterbalance to the labour necessary for bringing it under cultivation.

In a sense the school vegetable gardens are instances of the same movement. These were instituted at the primary schools by the public authority for the first time in 1917, and after the war they made great progress and were of immense educational value to the scholars.

The committees in charge of the bread tickets (the coupons that is to say, that came from the authority controlling the bread rations) issued tickets for the purchase of fodder at low rates, bran, maize, barley, of-fals, etc. to owners of small live stock. The issue took place at the municipal slaughter-house.

The applications for small gardens were, however, relatively very few. Indeed some of the plots offered by certain philanthropic business men, for example by the proprietor of the Löw-Beer Spinning Mills, were not taken up at all, although they were to be handed over ready manured and ploughed.

(c) *Graz*. — In Graz, with 159,000 inhabitants in 1916, *Heimgärten* were, according to a pamphlet by Professor Pfeiffer, instituted in 1907, thus forming the basis of a very excellent movement in the direction of small market gardens. Persons belonging to every profession, particularly, as happens everywhere, workmen and members of the middle classes, cultivated large areas subdivided into lots of 100 to 200 square metres, put at their disposal by the municipality, the State, ecclesiastical bodies, and also by business men and private landed proprietors. The area of the small market gardens was:

Before the war	20,500 square metres.
In 1917.	357,710 "
In 1919	813,449 "
In 1922	1,054,705 "

The number of lots laid out in vegetables was:

Before the war	75
In 1917.	2,833
In 1919.	6,993
In 1921.	7,135

Land for making market gardens was given as follows:

The State.	39,000 square metres
The municipality of Graz	446,563 "
Churches, convents, etc.	47,383 "
Manufacturers, etc.	185,730 "
Private landowners	325,222 "

(1) These data and those relating to other towns were obtained by means of a questionnaire prepared for the purpose by the present writer.

Deserted plots of land, building land, etc. supplied 10,838 square metres.

(d) *Other towns.* — *Innsbruck*, which in 1916 had a population of 60,000 in round numbers, reckons a market garden area of about 340,000 square metres which in the years from 1917 to 1919 was distributed in lots of from 200 to 400 square metres, and later, as the number of small cultivators kept increasing, in lots of only 100 to 200 square metres.

Wiener Neustadt, with about 35,000 inhabitants, has 150,000 square metres of market gardens, of which one third has been given by two large business firms and two thirds by the municipality. This extreme development of small cultivation has had a particularly favourable influence on the market, the more noteworthy as the surrounding country is not productive.

In *Liesing*, with 8,800 inhabitants, there are about 100,000 square metres utilized by small cultivators, in *Krems* with 130,000 inhabitants also about 100,000 square metres, in *St. Pölten* with 26,000 inhabitants, nearly 380,000 square metres.

The municipal authorities one and all report that the people are far from having as much land as they want, and they are continually taking up fresh spaces. All remark the valuable effect on the town provisioning, which it greatly facilitates; they state that the style of living of the workers has noticeably improved; they draw attention to the beneficial effects on family life and also to the increased income of those concerned who, in addition to their regular occupation, are engaging in an activity of great economic value. They further state that the small cultivators everywhere give up going to the public houses; they are often induced to attend lectures, courses, etc., of an instructive kind: they read technical journals and even make experiments in crops and new plants.

It should be mentioned that, especially among the Vienna *Schreibergärtner*, attempts to grow medicinal plants and to sell them in common are spreading, naturally with the encouragement of public bodies. Among the small cultivators of Upper Austria the tendency is often observed to try the Chinese methods for growing grain and to introduce them on a larger scale.

§ 3. SMALL MARKET GARDENS OUTSIDE THE TOWNS.

In the country the passing of the landless labourer into the class of those who grow their own food in part at least has come about for the most part in a very simple way: he has rented a piece of land from a farmer who, from circumstances arising out of the war, is not in a position to cultivate the whole of his land. In many cases the local authority found itself in the fortunate position of being able to let a large extent of plots of land to landless labourers: in other cases this could be done by a factory which in previous years had acquired land in view

of a future extension. It often happened that buildings near waterfalls taking the place of former mills possessed large stretches of land which up to now had been let to some peasant.

Plots of land could thus be had quite easily, in contrast to what happened with the *Schrebergärten*, since the local authorities knew that by far the best way to satisfy the urgent demands of half-starved labourers was to give them land, and because they could in that way prove to the Government, who looked askance at uncultivated land (1), that everything possible was being done to utilize the soil to the full.

Matters were greatly helped by the fact that hands employed in the ordinary rural businesses, and often their wives too, belonged to peasant families and by long residence in the country were in close touch with agriculture, so that they were in a position to manage the lands leased to them with skill and success; besides their houses are generally close to the fields, and often have fittings rendering the management of a small farm an easy matter. The country workman's plot is just like that of the peasant, while the town worker's plot is more like that of the professional gardener.

Small vegetable plots of from 2,500 to 6,000 square metres sprang up in nearly all rural parishes, especially where the surrounding country was not productive and where the economic conditions for such undertakings existed. No statistical returns were made of the number or extent of the plots so leased, except in the case of those granted by the Ministry of Railways to its employees. We shall go more fully into the question of these later on.

It should be said that along with the taking up of these plots there went the breeding of small animals, especially goats, rabbits and fowls, often pigs also (2). Special provisions in respect of these were rarely made, being unnecessary, as there was always a supply of breeding animals in the neighbouring peasants' plots, available also for the small holders. These as a rule profited by the measures taken by the Government in the interests of agriculture proper, for example by the seed supplies.

Unfortunately there was during the war no legislative provision securing the continuous and regular use of these plots, under the form of a proper letting agreement; thus the tenant was often very uncertain of the terms and the duration of the contractual relation, and for that reason neglected to make improvements or to manure properly. But the impossibility of utilizing the land in any other way had the effect of stabilizing the relationship. The rights on either side were defined, on the whole on the lines of not allowing a repudiation of the

(1) By a Decree of the Ministry of Agriculture of 15 February 1915 published in the *Reichsgesetzblatt*, No. 38, every landowner was obliged to cultivate all the land belonging to him. If this was impossible, the local authority was to take steps to do so.

(2) According to *Wirtschaftsstatistische Materialien über Deutsche-Oesterreich* (Vienna 1919), there were in Lower Austria in December 1910 94,500 goats and in October 1918, 142,000 goats: this latter number must now be greatly increased.

contract, by the Regulation for the Protection of Small Tenants (*Pächterschutzverordnung*) of 18 December 1919 (1), reinforced by that of 18 July 1921 (2).

In conclusion, it may be said of this type of small vegetable garden that it represents an intensive cultivation of the soil over a very considerable area, and that it materially assisted to maintain the level of the food supply, and to preserve the peace of mind of the labourers concerned, in difficult circumstances. It is worth remark that the workmen proved for themselves the needs and difficulties of agriculture, a fact which contributed not a little to the maintenance of the understanding between producers and consumers.

§ 4. UTILIZATION OF LANDS BY EMPLOYEES OF THE STATE RAILWAYS.

Among the employers of labour who, as has already been said, gave commendable encouragement of all kinds to the organization of market gardens, special mention must be made of the Ministry of Railways and all the railway authorities, who apply themselves systematically and with success to make life more endurable for their workmen and employees through the medium of kitchen gardens. In some measure, more favourable conditions exist for the utilization of the land by railway employees than by other groups of industrial workers. In time of peace, a number of railway men, especially watchers of the line, had carried on agriculture on small allotments near the railway, and had pastured their cattle on grass from the railway banks. Provisions and circulars of the Ministry of Railways urged on other railway men the possibility of learning to bring under cultivation further plots belonging to the railways, used only in part or temporarily as dumping grounds, or which had been bought in view of future extensions. Near the branch lines, there were small places available and capable of being utilized for farming. During the war the agricultural activities of the railway men was much curtailed by exceptional demands for compulsory overtime work.

Of importance were the instructions of the Minister of Railways, Förster, laying down that all plots of land within the administrative area in any way available were to be devoted to the creation of railway market gardens (3). On the whole the railway administration did not interfere in the guise of an employer or producer, but only by way of encouragement to the efforts of individual employees. Thus when there was no land of their own available, lands belonging to outsiders were leased on long term agreements. The first ploughing of soil previously untilled was provided for, as well as the laying on of water and making of fences, and manures were brought from the stations for disinfection of the trucks.

(1) Published in the *Staatsgesetzblatt*, No. 589.

(2) Published in the *Bundesgesetzblatt*, No. 398.

(3) HELMER: Die Kleingartenbewegung des österreichischen Staatseisenbahnverwaltungen im Kriege, in the fourth part of the *Österreichische Gartenzeitung*, 1918.

At the beginning of the war 1,500 hectares in round numbers were cultivated by about 20,000 men in all Austria (excluding Galicia and Bukowina). From 1915 to 1917 about 513 hectares of fresh land was brought under cultivation and 60 hectares were taken on lease, so that another 18,000 railway men received market gardens of from 180 to 250 square metres in extent. From one to two *Heller* the square metre was paid in rent, while for lands not belonging to the railways five *Heller* was paid. Many railway men have of course rented land on their own account directly from third parties.

With the aim of promoting the growing of vegetables, special measures were taken, on similar lines to those followed by a large number of the local authorities especially in procuring seeds and seedlings. As a pattern and example, there was the model vegetable garden, of nearly 3,000 square metres in extent, created at Leitmeritz by Herr Hromatka, an engineer, in which special attention was paid to bush fruits. Similar plans were made or attempted by other railway directorates.

To reward the efforts of individual small cultivators, to spur on others and to give a valuable demonstration to all, an exhibition was held of the produce of the Vienna small cultivators belonging to the railways, with very satisfactory results.

It should be mentioned that the movement for market gardens spread after the war among the railway men of the new Austria, and its growing success found its best proof in the exhibition held at Linz in September 1921 (1).

Along with the market gardening the railwaymen naturally carried on the breeding of small stock, and in this respect also they could benefit by the encouragement given by the railway directorates. Especially noteworthy are the attempts to transform into fish-ponds the ditches running the length of the railway banks, made by excavations, etc. These could not be used for agriculture on account of the frequent or regularly occurring floods. The Linz railway directorate put into order seven ponds for carp and four for trout.

Beckkeeping was systematically encouraged, and pig-breeding by means of the setting up of service stations whence boats were obtained.

Many railwaymen possessed milk producing animals, often cows but usually goats: here and there sheep too where there was pasture ground in the woods and in the cuttings.

5. FARMS ATTACHED TO INDUSTRIAL UNDERTAKINGS.

While the small cultivators directly take up the plots and bear the whole risk of their activity, the *Industriegüter* (farms attached to industrial undertakings) must be considered as the schemes of employers,

(1) DIE KLEINWIRTSCHAFT DER ÖSTERREICHISCHEN EISENBAHNEN AUF DER AUSSTELLUNG IN LINZ VOM 3. BIS ZUM 5. SEPTEMBER 1921. Linz, 1921. (The publication also served as a catalogue of the exhibition).

who are aiming at producing food stuffs on a large scale so as to put them at the disposal of their workmen and employees.

Attempts have been made in different places, without much real success, to draw away workers from industry to farm-work, at least temporarily, partly in consideration of the shortage of labour in agriculture, partly from hygienic reasons (1).

The lands farmed by the business firms are for the most part devoted to the intensive production of milk, thus making impossible the attainment of a financial result, given the high cost of production and the low selling prices. In the second place the aim is the production of pulse, then of fodder for the small stock of those attached to the farm. Cultivation of cereals, fattening of live stock and fruit growing took no important position. In fact as a rule products of this kind do not meet with the approval of the persons who are in charge of the distribution of the produce of these farm undertakings, seeing that the sharing out of quantities usually very small among a large number of claimants presents serious difficulties.

Out of the large number of the *Industriegüter*, we may mention the following, as they were created by funds from the State budget because intended for State employees: the Trautmannsdorf Farm, which is rented and managed by the Central Federation of Provision Warehouses for the Staff of the Austrian Transport Bodies (*Zentralverband der Lebensmittelmagazine für Bedienstete der österreichischen Verkehrsanstalten*); the Sussenbrunn Farm, where the Directors of the Vienna North-eastern Railway maintained 70 cattle; the Sonnleiten Farm and the Goat Farm in Gross Raunming (Upper Austria), managed by the Linz Railway Directors; the Government Offices' Farm at Fischamend, where 21 dairy cows are kept.

Besides these there were during the war farms leased in order to supply provisions for hospitals, refugee camps, etc.; these were managed by various Government officials.

Many municipal authorities, too, bought farms, as for example that of Vienna, and similarly various business firms, such as the Daimler works at Wiener-Neustadt, the Bohler works at Sollenau, etc.

But speaking generally, these *Industriegüter* have never attained any striking economic importance, nor was it likely they should in view of their limited extent and the large number of persons sharing in the produce. Seeing that the workmen do not set much store by the produce, and that meanwhile the farms lie idle, in the greater number of cases there is a tendency to give up these lands and to make them available for market garden and home colonization schemes. The fact is worth noting that the city of Vienna, a little while after the end of the war, again let the lands bought during that time.

(1) KELLER: *Beurlaubung von Industriearbeitern zur Beschäftigung in Landwirtschaftlichen Betrieben unter Mitwirkung der sozialen Versicherungsanstalten. Ein Vorbeugungs- und Volkshilfsmittel gegen Nervenkrankheiten.* Leipzig, 1905.

Owing to the market garden movement, the working classes were enabled to maintain life at a level at least tolerable during the war, and to gain advantages which they will only be able to realize later on, when all the new gardens are cultivated, and supplied with fruit-trees in bearing.

The market gardens, which had spread chiefly in the territory of the present Republic of Austria, the part of former Austria which suffered most, have continued their existence since the war, in fact have experienced a rapid development, a fact that is to be explained on the one hand by the continued shortage of food stuffs, on the other by the fact that now that the initial work of bringing the soil under cultivation is accomplished and the *Schrebergärtner* have accumulated experience, the yields are increasingly satisfactory (1).

It must be borne in mind that the market gardening has not only contributed in a remarkable degree to provide the gardeners with vegetables of all sorts and so to reduce the demands on the produce of professional and peasant vegetable growers, thus helping to keep prices low (2), but it is of the greatest importance to the cultivators from the point of view of health. Work in the market gardens — as has been confirmed by a wide enquiry made among all the principal local administrations — has exercised a valuable influence on the moral and economic development of the people.

(1) According to a report of the Town Council of February 1922, the yield obtained by the market gardeners of Vienna is estimated at 1,300 million *Kronen*, being an index of the great economic importance of the movement and of the good will of the people of Vienna who passed a large fraction of their spare time in market gardens creating new values all the time.

(2) The prices of vegetables are always lower in large centres with a well developed system of vegetable gardens, than in places close by, with less area devoted to small vegetable gardens and with a more productive surrounding country.

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PRINCIPAL WEIGHTS, MEASURES AND MONEY OF THE VARIOUS COUNTRIES AND THEIR BRITISH EQUIVALENTS ---

1 Cadastral arpent (Hungary)	=	1.42201	acres
1 Centimetre	=	0.393715	inches
1 Cho (60 ken) (Japan)	=	119.30327	yards
1 Crown 100 heller (Austria-Hungary)	=	10 d.	at par
1 Crown (100 öre) (Denmark, Norway, Sweden)	=	15.1 $\frac{1}{8}$ d.	at par
1 Deciatine (2 tchetwert, Russia)	=	2.69966	acres
1 Dinar, gold (100 para) (Serbia)	=	933/64 d.	at par
1 Dollar, gold (\$) (100 cents) (United States)	=	48.5 $\frac{1}{16}$ d.	at par
1 Drachm, gold (100 lepta) (Greece)	=	933/64 d.	at par
1 Egyptian Kantar	=	99.0498	lbs.
1 Feddan Masri (24 Kirat Kamel) (Egypt)	=	1.03805	acres
1 Florin, gold, or Gulden (100 cents) (Netherlands)	=	15.733/64 d.	at par
1 Franc (100 centimes) (France)	=	933/64 d.	at par
1 Gramme	=	0.03527	oz.
1 Hectare	=	2.47109	acres
1 Kilogramme	=	2.2	lbs.
1 Kilometre	=	1093.613	yards
1 Kokou (10 To) (Japan)	=	1.58726	quarts
1 Lei, gold (100 bani) (Rumania)	=	9 $\frac{83}{64}$ d.	at par
1 Leu (100 stotinki) (Bulgaria)	=	933/64 d.	at par
1 Lira (100 centesimi) (Italy)	=	933/64 d.	at par
1 Litre	=	{ 0.21998 0.0275	gallons bushels
1 Mark (100 Pfennige) (Germany)	=	11 $\frac{3}{4}$ d.	at par
1 Mark (100 penni) (Finland)	=	933/64 d.	at par
1 Metre	=	3.28084	feet
1 Milreis, gold (Brazil)	=	25.2 $\frac{61}{64}$ d.	at par
1 Milreis, gold (Portugal)	=	45.5 $\frac{19}{64}$ d.	at par
1 Peseta, gold (100 céntimos) (Spain)	=	933/64 d.	at par
1 Peso, gold (100 centavos) (Argentina)	=	35.1137/64 d.	at par
1 Peso, paper (Argentina)	=	15.833/32 d.	at pa
1 Pound, Turkish, gold (100 piastre) (Ottoman Empire)	=	185.015/64 d.	at par
1 Pund (Sweden)	=	0.93712	lbs.
1 Quintal	=	1.96843	cwts.
1 Rouble, gold (100 kopeks) (Russia)	=	25.1 $\frac{3}{8}$ d.	at par
1 Rupee (16 annas) (British India)	=	$\frac{1}{10}$ of £1 (gold)	
1 Talari (20 piastre) (Egypt)	=	45.111/32 d.	at par
1 Verst (Russia)	=	1166.64479	yards
1 Yen, gold 2 fun or 100 sen) (Japan)	=	25.037/64 d.	at par
1 Zentner (Germany)	=	110.23171	lbs.

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INTERNATIONAL REVIEW
OF AGRICULTURAL ECONOMICS

(MONTHLY BULLETIN
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Co-operation and Association

AUSTRIA.

AGRICULTURAL CO-OPERATION DURING THE WAR

by Dr. HERMANN KALLBRUNNER.

§ 1. THE AGRICULTURAL CO-OPERATIVE SOCIETIES BEFORE THE WAR.

When the war broke out in August 1914, there was in existence in Austria a far-reaching net-work of co-operative societies of all kinds which were on the way to successful development, thanks, among other causes, to the vigorous and varied efforts of the administrative departments of the State and of the separate provinces.

According to the returns made by the Central Statistical Commission, on 1 January 1914 there were in existence 19,091 registered co-operative societies (1) distributed among the different regions as is shown in Table I. So as to compare the development of co-operation in the different regions with the number of inhabitants, and also the number of the agricultural co-operative societies with the agricultural population, we give (in column 3) the population at the time, and (in column 7) the number of persons who declared as their profession agriculture, sylviculture and kindred occupations (2).

Of these co-operative societies 9,904 were on the basis of limited liability, 3,408 of them being purely agricultural; the others were on the basis of unlimited liability. Twenty one of the 99 co-operative federations were associations, but the majority were registered co-operative societies.

Of the co-operative societies 34.7 per cent. were German, 28.2 per cent. were Czech, 15.5 per cent. were Polish, 8.1 per cent. Ruthenian, 5.1 per cent. Slovak, 4.8 per cent. Italian, 2.5 per cent. Serb-croatian, and 1.1 per cent. Roumanian.

(1) *Oesterreichische Genossenschaftspresse*, No. 255, of 9 July 1914.

(2) *OESTERREICHISCHES STATISTISCHES HANDBUCH*, Vienna, 1918. Pages 5 and 12.

TABLE I. — *Development of Co-operation according to the Number of Inhabitants and the Agricultural Population.*

Regions	Co-operative societies registered	Population at time	Co-operative credit societies	Railways banks included in (4)	Other co-operative agricultural societies	Agricultural population	Number of federations
1	2	3	4	5	6	7	8
Vienna	352		144	—	5		12
Lower Austria (excluding Vienna)	1,256	3,531,814	652	557	485	635,086	—
Upper Austria . .	432	853,006	285	260	77	399,791	3
Salzburg	103	214,737	64	57	13	85,993	1
Styria	856	1,444,157	551	431	181	767,609	7
Carinthia	292	396,200	219	180	43	202,288	2
Carniola	444	525,995	227	189	177	326,035	4
Trieste	104	220,510	34	4	11	93,13	—
Görz	233	260,721	119	104	79	154,916	3
Istria	249	403,566	132	113	76	247,440	2
Tyrol	1,116	946,613	502	476	490	513,591	7
Vorarlberg	209	145,408	83	78	51	46,018	2
Bohemia	5,005	6,769,548	3,307	2,586	575	2,186,043	9
Moravia	2,424	2,622,271	1,370	869	446	1,082,381	7
Silesia	631	756,949	393	320	63	220,865	4
Galicia	1,231	8,025,675	3,303	1,494	576	5,863,044	23
Bukovina	752	800,098	581	472	85	569,238	8
Dalmatia	402	645,666	260	216	78	533,256	5
Total . . .	19,091	28,571,934	12,240	8,406	3,511	13,842,707	99

The following figures give an idea of the successive development of co-operation in Austria (1) :

(1) For further details on Austrian agricultural co-operation, consult : STORCK : Überblick über den Stand des landwirtschaftlichen Genossenschaftswesens in Österreich, Vienna, 1910. — MITTEILUNGEN AUS DER STATISTIK DER LANDWIRTSCHAFTLICHEN GENOSSENSCHAFTEN IN ÖSTERREICH, 3 volumes, Vienna, 1910-17. — JAHRBERICHT DES ALLGEMEINEN VERBANDS LANDWIRTSCHAFTLICHER GENOSSENSCHAFTEN IN ÖSTERREICH, Vienna, 1910 et seqq. — *Österreichische landwirtschaftliche Genossenschaftspress*, Vienna, 1901 et seqq. — NEUDÖRFER : Der Entwurf eines neuen Genossenschaftsgesetzes und die Entwicklung des österreichischen Genossenschaftswesens, Vienna, 1913. — NEUDÖRFER : Grundlagen des Genossenschaftswesens, Vienna 1921. — HATTINGBERG : Das Österreichische Förschulungsprogramm, Vienna, 1910. — FÜRER : Das landwirtschaftliche Genossenschaftswesen in Österreich, Vienna, 1912. — KERBLER : Das landwirtschaftliche Genossenschaftswesen in Oberösterreich, Linz, 1903. — RICHTER : Das landwirtschaftliche Verein- und Genossenschaftswesen, from : GESCHICHTE DER ÖSTERREICHISCHEN LAND- UND FORSTWIRTSCHAFT, Vienna, 1902. — AGRAR-KOMPASS, JAHR- UND ADRESSBUCH DER ÖSTERR. LANDWIRTSCHAFT, Vienna, 1915.

Years	Number of co-operative societies
1873	169
1880	1,155
1890	1,898
1900	7,502
1910	16,469
1914	19,091

The year 1873 may be regarded as that which saw the beginning in Austria of co-operation regulated by law, organized on a uniform basis, and systematically promoted by the State. In that year the law on co-operative societies in Austria appeared (Gesetz vom Jahre 1873, über die Erwerbs- und Wirtschaftsgenossenschaften in Oesterreich, *Reichsgesetzblatt*, No. 70), which has not failed to have a beneficial effect on the movement.

§ 2. THE CO-OPERATIVE SOCIETIES DURING THE WAR.

On the declaration of War, all subsidies were at once withdrawn from the co-operative societies. By the decree of 2 August 1914, the Ministry of Agriculture stated that it would be possible to grant subventions only in cases of extreme urgency, and that co-operative societies must take measures to maintain themselves out of their own funds. Those of the managing staff who were liable for military service were called up, without any regard to the possibility of replacing them (1). The courses conducted before the War for the training of employees for co-operative societies (2) were no longer held: all the projects (3) in the interest of the development of co-operation were abandoned. It happened besides that the general conditions became less and less favourable to the growth of co-operative organizations, and that there came to be a shortage of all the articles to which the activity of co-operative societies could be applied. Thus the requisitioning of cereals deprived the co-operative warehouses of the chance of operating, while the demand for large consignments of cattle to be delivered to the military authorities similarly affected the co-operative societies for the sale of live stock (4). The enemy invasions in Galicia, in Bukovina and in Görz were prejudicial to the co-operative organizations

(1) From the beginning of the War only persons engaged in the business of supplying cereals to the army were exempted from military service.

(2) The last course was held from 15 January to 30 April 1914: it was attended by 27 persons.

(3) The third co-operative congress which was to have been held at Prague from 12 to 14 September 1914 was hastily postponed after the outbreak of war.

(4) See: KALT BRUNNER: Measures adopted by the Austrian Government for the Encouragement of Agriculture during the War (1914 to 1918), in the *International Review of Agricultural Economics*, Nos. 11 and 12, 1921.

of those regions ; the war in the Adriatic rendered co-operative fishing practically impossible, an enterprise that had attained success by means of remarkable efforts. Some forms of co-operation nevertheless undoubtedly reaped advantage from the war, as for example the co-operative sale of resin which was able to take advantage with immense profit of the circumstances arising in war-time.

Co-operative societies for potato-drying sprang up for the first time; but they had only a brief prosperity and the shortage of fuel prevented their development. Except for this kind of society, the Government took no steps during the War to promote co-operation directly. In co-operative circles resentment was often felt at the influence of indirect measures, which by no means always led to the results hoped for.

The Central Statistical Commission registered on 1 January 1918 (the date on which the last statistics of Austrian co-operation were taken), 19,650 co-operative societies, that is to say 595 more than on 1 January 1914; but this result depends on the fact that new societies have been added, while no subtraction has been made from the total of the many societies of whose dissolution no information has been received (1). It is symptomatic of the state of affairs that the publication of the periodical *Oesterreichische landwirtschaftliche Genossenschaftspress* was suspended at the end of 1917, and that the General Federation of Agricultural Co-operative Societies (*Verband der landwirtschaftlichen Genossenschaften*) went into liquidation immediately after the fall of the Empire.

We will now pass on to the examination of the working of the different forms of agricultural co-operation during the War.

§ 3. THE CO-OPERATIVE CREDIT SOCIETIES.

The most numerous and most important co-operative societies in Austria have always been the credit societies, organized almost exclusively on the Raiffeisen system, and of great value as banks for the granting of credit for working expenses on short term and as savings banks for small deposits. They were protected against the danger of excessive demands for repayment by the moratorium issued immediately after the outbreak of war, for the express purpose of preventing hurried withdrawals from credit institutions. It is true that on the other hand the moratorium and the resulting impossibility of making free use of credits properly belonging to one, greatly shook the faith in the banks on the part of wide sections of the rural classes.

The desire to be able to make free use of one's own substance often weakened the sense for saving, and led to large hoards which in their turn brought about a noticeable lack of ready money.

The Ordinance of 31 July 1914, contained in the *Reichsgesetzblatt*, No. 193, directed a fortnight's postponement in the payment of all private debts, except those of an amount less than 200 kronen, and those connected with payment of wages, rents, etc.

(1) See : OESTERREICHISCHES STATISTISCHES HANDBUCH, Vienna, 1918, p. 152

At the same time the Minister of Agriculture published a proclamation to the nation, intended to reassure savings bank depositors as to the safety of their deposits, and to put a check on large and unnecessary withdrawals. By the Ordinance of 14 August 1914, contained in the *Reichsgesetzblatt*, No. 216, the moratorium was prolonged till 30 September 1914, but the amount of the withdrawals allowed was graded according to the character of the credit institutions. From the Raffeisen banks only sums up to 50 kronen could be withdrawn, from banks with limited liability up to three per cent. of the credits with a maximum of 400 kronen, and from other institutions up to 2 per cent. of the credits with a maximum of 200 kronen.

The third ordinance on the moratorium reproduced in the *Reichsgesetzblatt*, No. 261, prolonged the limit for the repayments up to 30 November 1914: and the fourth dated 25 November 1914 contained in the *Reichsgesetzblatt*, No. 321, up to 31 January 1915.

The *Genossenschaftspress* of 15 October 1914, No. 272, justly remarks in an article summarizing the co-operative situation, that there were no signs of panic in the Raffeisen banks, that the sums withdrawn were within normal limits, and that especially in regions where good profits were realized by the sale of cereals, large deposits on the contrary were being made and debts repaid.

By the Ordinance of 25 January 1915, contained in the *Reichsgesetzblatt*, No. 18, the limits for the payment of debts in Austria (excluding Galicia and Bukovina, where special provisions were issued on account of the circumstances of the War) were still further prolonged, that is to say to the months of February 1915 or May according to the original date of expiry. Credits becoming due from November 1914 to January 1915, on the basis of the sixth ordinance on the moratorium dated 25 May 1915 (*Reichsgesetzblatt*, No. 138), were made payable from June to August 1915. By this ordinance the normal situation was restored in the western States of Austria, not directly affected by the War. This came about after the issue of a number of other ordinances on the subject: ordinances however of minor importance and dealing only with details. The right of granting a prolongation up to 31 December 1915 in cases deserving of special consideration was left to the tribunals (1). In the territories of Galicia and of Bukovina, for the most part seriously affected by the war, the moratorium was again prolonged for 1916 by an ordinance of 22 December 1915 (*Reichsgesetzblatt*, No. 385), and for the first six months of 1917, and in certain cases deserving special consideration for the whole of 1917, by the ordinance of 28 December 1916 (*Reichsgesetzblatt*, No. 422).

Since there was a danger that from the continuance of the moratorium, and the stoppage of deposits, the credit organizations would not be in a position to meet even the reduced applications for money on the part of their members, the Government took care that the needs of the co-operative societies should be met by means of large discounts and credits

(1) Ordinance of 22 December 1916, in *Reichsgesetzblatt*, No. 384.

on the pledge given by the post-office savings banks and the Bank of Austria-Hungary.

In order to make it possible to furnish credit to firms that found themselves in difficulties owing to lack of ready money, the War Loan Bank (*Kriegsdarlehenskasse*) was opened in Vienna by the Ordinance of 19 September 1914 (*Reichsgesetzblatt*, No. 248). Representatives of agricultural co-operation took part in its administration. They did their best to procure credit for these organizations in so far as it was necessary. Although the bank which dominates Austrian finance, the Bank of Austria-Hungary, Vienna, had on 3 August 1914 raised the discount rate to 8 per cent., and the rate on loans of other kinds to 9 per cent., and although this was naturally not without effect on the Raiffeisen banks, the progress of these banks in the first year of the War was not unfavourable. On the other hand the profits on the sales of the different agricultural products put the members in a position to make deposits more freely and to repay debts. In these circumstances it was also to be expected that the discontinuance of the moratorium in August 1915 would be without prejudicial effects. The prosperity of the co-operative societies was evidenced also by the large subscriptions to the war loans, made by members through the societies. According to a communication from the General Federation that appeared in the *Oesterreichische landwirtschaftliche Genossenschaftspress*e there were subscribed through the medium of the co-operative societies:

31,183,303	kronen in the	first	war loan
49,713,089	"	"	second "
100,585,207	"	"	third "
154,929,326	"	"	fourth "

These by no means negligible subscriptions would never have come about if the Government had not issued special provisions on the matter. Thus, for example it was provided that loans and mortgages might be taken up without payment of tax if the sum thus obtained should be invested in war loan (Ordinance of 15 April 1916, *Reichsgesetzblatt*, No. 101). Steps were also taken to encourage the creation of co-operative societies and associations formed for the purpose of collective subscriptions to the war loans.

The circumstances of the credit organizations improved still more in the last years of the War, so that special provisions for their encouragement were not necessary, and the Report on the regulations issued by the Government on the occasion of the war (*Denkschrift über die von der Regierung aus Anlass des Krieges getroffenen Massnahmen*) could confine itself to stating briefly "that the situation has developed in a satisfactory way, so that the credit organizations have been able to furnish considerable sums in subscription to the fifth and sixth war loan (1)."

These subscriptions often came to such large sums that the co-operative societies found themselves without ready money, which created difficulties from time to time.

With regard to the development of the co-operative societies during the War, very instructive figures have been recently published in an extremely clear form by the Central Federation of German Agricultural Co-operative Societies in Bohemia (*Zentralverband der deutschen landwirtschaftlichen Genossenschaften in Böhmen*) for its own area (1), whereas the publications of the majority of the federations are either very incomplete or only handled with much difficulty, and several federations have suspended publication.

The number of the affiliated societies in this Federation increased during the War from eight to 694. The number of the members increased from 82,410 to 85,209. The total business done was

171 millions of kronen in 1913			
170	"	"	1914
261	"	"	1915
331	"	"	1916
424	"	"	1917
501	"	"	1918
500	"	"	1919

The savings deposits amounted to

151 millions of kronen at the end of 1916			
202	"	"	1917
252	"	"	1918

Loans were made from the banks to members for

22 millions of kronen in 1913			
17	"	"	1914
10	"	"	1915
21	"	"	1919

The co-operative societies deposited with the Central Federation:

14,673,758 kronen in 1913			
13,357,878	"	"	1914
39,034,004	"	"	1915
56,605,179	"	"	1916
79,368,322	"	"	1917
127,467,256	"	"	1918

(1) WEDEN (Dr.): Festschrift des Zentralverbandes der deutschen landwirtschaftlichen Genossenschaften Böhmens anlässlich der 25-jährigen Bestandesfeier: 1896 bis 1921. Prague 1921

Loans were made from the Central Federation to the co-operative societies to the amount of :

11,265,113	kronen	in	1913
9,449,307	"	"	1914
10,679,438	"	"	1915
11,653,884	"	"	1916
6,615,411	"	"	1917
4,262,940	"	"	1918

The decrease in the loans and the slow increase in the deposits in relation to the depreciation of the krone, are evidence of a temporary weakening of the interest in the co-operative societies. Nor can it be denied that these are always becoming burdened with heavier general expenses, without a corresponding increase in the development of business. But given the enormous rise of the prices of all kinds of necessities, it was not possible in the long run to keep the expenses of rents, management, remuneration of book-keeping staff, premiums for insurance against theft, at the same level as before. The burden of taxation also continued to increase.

Finally attention may be called to the Decree of the Minister of Finance, No. 26,996 of 1914, which provides that in view of the reduced numbers of auditors owing to the call to the colours, there might be an exceptional suspension of the obligation, as prescribed by law (1), for the biennial revision of the accounts of all co-operative societies.

The Ordinance of 9 August 1915 published in the *Reichsgesetzblatt*, No. 234, about the sale of forest and agricultural holdings, issued after long preliminary investigations (2), gives to the Raiffeisen banks and to the communes the right of precedence in the purchase of lands put up for sale and grants special powers subsequently widened by later regulations supplementing the ordinance. In actual fact, these measures have been successful in preventing the absorption of peasant holdings, and the acquisition of land by outsiders, more especially by speculators and war profiteers.

§ 4. CO-OPERATIVE WAREHOUSING SOCIETIES.

If we have just found that the economic importance of the Raiffeisen banks has diminished during the war from adverse circumstances, we can affirm exactly the opposite of the co-operative warehousing societies. These have increased in number and everywhere done a highly valuable work.

(1) On the basis of § 1 of the Law of 10 June 1903, published in the *Reichsgesetzblatt*, No. 138.

(2) See the scheme of the Austrian Council of Agriculture (*Oesterreichischer Landwirtschaftsrat*) of 1908, published in the *Oesterreichische Genossenschaftspress*, No. 109 of 3 June 1908; STORCK: *Massnahmen zur Bekämpfung der Guterschlachtere*. Vienna; KALLBRUNNER: *The Absorption of Peasant Holdings, and Legislative Efforts to Counteract it*, in *International Review of Agricultural Economics*, No. 4, 1920.

In time of peace they took an active part in the supplies for the Commissariat of the army, a connection much valued by the co-operative societies in so far as the conditions of delivery and the prices were always exactly fixed and rigorously observed (1). In some regions the co-operative societies practically had the monopoly of supplying the military provision stores. It was thus natural that an attempt should be made to maintain these relations when war broke out. On 25 July 1914 the Minister of War sent a circular note to all the co-operative federations asking what grain they had at their disposal and were in a position to supply regularly. By the Ordinance of 10 August 1914, contained in the *Reichsgesetzblatt*, No. 191, the requisition of the stores actually in the warehouses was ordered with the object of preventing hoarding and the sale of cereals stored there at excessive prices. These requisitions had only scanty results; the greater part of the cereals were not yet threshed and much, especially in the colder regions, not even yet reaped. Hence, on 7 August 1914, the federations were instructed to buy breadstuff cereals and forage on the account of the Commissariat, in whatever quantity they could, and to keep it ready for immediate consignment. The delivery was not compulsory on the basis of the War Service law, but by free contract on prices fixed by the Ministry of War. These supplies came in large quantities. Thus the Federation of Co-operative Societies of Lower Austria furnished, up to the end of September 1914, 1,575 truck loads of cereals; the Czech Federation of Bohemia 1,557 truck loads of oats, hay and straw and 1,467 of cereals; the German federation, 1,416 loads of cereals. The Czech Federation of Moravia contributed 2,700 truck loads of cereals, that of Silesia 12 truck loads of oats, that of Laibach 80 loads of hay, that of Bolzano 18 loads of hay and 28 of straw. This business would have become much larger, and its beginnings certainly gave promise of this in spite of adverse circumstances, if the prices offered by the Ministry of War had not remained lower than those offered by dealers, millers, or even by the military divisions buying on their own account. The consequence was that the members of the co-operative warehousing societies refused to continue to sell them their own produce. The situation was further aggravated by a serious shortage of bags, by the slowness of the process of payment, and by inadequate organization of the delivery of cereals sold.

The carrying out of these forced purchases was in the hands, as far as possible, of the co-operative warehousing societies, who were obliged to obtain cereals from non-members. As such operations are expressly forbidden by the law on co-operative societies and the partial exemption from taxation which the co-operative warehousing societies enjoy extends only to business with members, the taxes clearly had to be paid by the non-members.

On 21 February 1915 the requisitioning of all cereals was ordered, ordinary trade was suspended, and the War Institute for the Cereal Trade

(1) Every year the Ministry of War published instructions for the purchase of different kinds of provisions, minutely detailing the conditions of purchase.

(*Kriegsgetreideverkehrsanstalt*) was commissioned to collect, warehouse and grind all available stocks and to arrange for convenient distribution to the consumers. This Institute was created on the lines of the ordinance of 27 February 1915, reproduced in the *Reichsgesetzblatt*, No. 41 (1). The quantity of cereals to be delivered by each commune being laid down in accordance with the crop statistics, the collection was carried out by agents. The co-operative warehousing societies were utilized in this capacity, and to an increasing extent, since their numbers were growing all the time (2), their storage arrangements were very practical, and the expansion of business did not present any difficulties. Although the commissions paid to the warehouses for the work they did were very small (less than those of private agents) and although the co-operative societies had now to pay taxes like all other commercial undertakings, the accession of this business much increased their activity, and they were consequently able to pay their debts and to increase their reserve funds.

The quantities handled, although the yield per hectare of crops greatly diminished during the War (3), were considerable, and were not confined only to cereals, but included also hay, straw, beans, potatoes, etc., all products then under State control. The co-operative warehousing societies of Bohemia alone supplied

in 1915	19,800 loads of cereals
» 1916	25,000 " " "
» 1917	15,600 " " "
» 1918	14,500 " " "

If the part taken by the co-operative societies in the delivery of cereals was much disliked by their members, they nevertheless were all the more in request for the purpose of the purchase of materials of all kinds. A particularly valuable impetus was given to the development of the co-operative warehousing societies by the fact that the Government made special use of them for the distribution of articles essential to agriculture and only available in very small quantities, a use to which they were well adapted by their arrangements for distribution and the convenient position of their warehouses. Thus in 1915 the General Austrian Society for Sale of Live-stock (*Allgemeine oesterreichische Viehverwertungsgesellschaft*) distributed,

(1) DIE KRIEGSGREIDEVERKEHRSANSTALT IHR AUFBAU UND IHR WIRKEN. BERICHT. Vienna, 1918; and DENKSCHRIFT UBER DIE VON DER REGIERUNG AUS ANLASS DES KRIEGES GETROFFENEN MASSNAHMEN 4 volumes. Vienna, 1915-18.

(2) In Lower Austria the number rose gradually from 21 before the War to 42; in the German part of Bohemia from 14 to 36. In this latter, the number of members doubled, rising to 12,000, that of the shares tripled, rising to 1,130,000 crowns, and the reserves increased by nine times, rising to 3,723,000 crowns.

(3) According to the statistics published by the Minister of Agriculture the yield per hectare fell in Lower Austria from 16.9 quintals in 1913 to 8.1 quintals in 1918 for wheat, and from 16.5 to 8.4 quintals for rye.

by means of the co-operative warehouses large quantities of brown sugar denaturalized and consequently duty-free. Other cattle foods, such as brewers' grains, oil-cake, dried potato pulp, were equally put at the disposal of the Central Forage Office (*Futtermittelzentrale*) (1), which had to make the best possible distribution of the various foods, through the medium of the co-operative warehousing societies. In the same way were distributed the very small quantities existing in Austria of sulphate of copper, of seeds, of coal, of benzine for use in agricultural machines.

The following figures relate to the work accomplished in this respect by the German co-operative warehousing societies of Bohemia :

TABLE II. — *Articles distributed
by the German Co-operative Warehousing Societies of Bohemia.*

Years	Fertilizers	Seeds	Coal	Fodder
1913	1,141	37	1,322	427
1914	1,575	70	1,018	406
1915	2,365	75	1,040	343
1916	1,074	93	646	1,043
1917	2,154	6	4,738	75
1918	2,215	31	57	26

The amount of the turn-over expressed in terms of money value increased in correspondence with the quantity of goods handled and was also affected by the rise in prices.

For the co-operative societies above mentioned, there are the following figures :

Year	Kronen	Year	Kronen
1910	102,518,841	1916	412,947,190
1911	120,103,626	1917	453,103,838
1912	134,579,591	1918	709,356,217
1913	122,825,236	1919	637,889,088
1914	135,511,247	1920	808,232,461
1915	334,660,657		

How valuable the work of the co-operative warehousing societies was to agriculture is shown by the fact constantly remarked that the yield of the lands was practically always at a higher level in districts where there were co-operative warehousing societies.

Mention should also be made of an institution which came into existence in German Moravia, of co-operative origin but apparently dissociated

(1) Created by the ordinance of 14 August 1915 (*Reichsgesetzblatt*), No. 238.

from the aims of co-operative organizations. We refer to the successful formation of warehousing societies, constituted on the basis of the Law of 6 March 1906 (*Reichsgesetzblatt*, No. 58) on limited liability companies. It was proposed to place the Raiffeisen banks and the other co-operative societies that had no distributive machinery or warehouses available, in a position to distribute the different Government consignments, and to collect the quantities of cereals, hay, and straw of which delivery was ordered. They had to take steps to amass these quantities by direct methods, apart from trade means: this could not be done without warehouses and without machinery for collecting. Guided by these considerations, and by a sense of the urgency of the matter, the Central Federation of the German Co-operative Societies of Moravia (*Zentralverband der deutschen Genossenschaften Mährens*), with the aid of the Government, drew up model rules and a draft scheme which a short time after were taken as the basis of their constitution by 14 societies.

The need of the distribution of 35 loads of sulphate of ammonia assigned by the Government to 600 communes, the simplicity of the constitution — the decision of the board or of the Vigilance Committee of a co-operative society or of the Council of the commune sufficed — the possibility of doing business on a large scale for non-member also, finally the effective propaganda of the speakers for Hilmer co-operation, brought it about that a large number of these societies were formed with a wide radius of action (1). That a real need was thus met appears from the fact that the capital invested in the 14 societies first constituted yielded an average interest of 7.92 per cent., and that it was possible through their medium to supply articles required to 126 communes, that is to say to rather more than one fifth of the 600 communes of German Moravia.

In the following years also this form of society originating from the co-operative societies and constituted on co-operative principles has continued to show excellent results, more especially by reason of the greater liberty of the managing bodies which also have the disposal of financial resources relatively much larger than usually happens with the ordinary co-operative societies in which for the most part a deficiency of capital makes itself felt, this being a consequence of the serious mistake generally made at the time of their constitution, in order to obtain members in large numbers.

§ 5. THE CO-OPERATIVE DAIRIES.

These co-operative societies, which before the war were very widely spread through Austria and took a very important share in the provisioning of the cities, suffered severely during the war. In fact, besides the difficulties of a general kind, such as want of trained staff, of coal, of cans, etc., two special circumstances combined to limit their working in a very marked degree. First of all the scarcity of milk, which in its turn depended on a variety of causes. The number of dairy cows diminished considerably,

(1) The warehouse in Moravian Neustadt in its first year handled 39,291 quintals of cereals*

as when the butchers' beasts properly so-called were all gone the milch cows were also sacrificed on a large scale. Feed became scanty and of inferior quality: concentrated foods almost completely disappeared and hay had to be delivered in large quantities to the military authorities. Finally the direct consumption on the part of the owner of cattle increased, since in the shortage of flour and meat, they consumed their own produce in a much larger measure than in time of peace. And undoubtedly a difference was also made by the less careful oversight of the cattle, and the decreased manuring and cultivation of the meadows and pastures

In Lower Austria 345,964 cows were registered in 1900 and in 1918 only 254,019 with a decrease of 26.59 per cent. (1). The average daily yield of a cow was reckoned before the War at five litres, and as early as 1917 at only 3.5 litres. Hilmer (2) comparing the milk supplies of several co-operative societies before the war and in 1916, arrived at the following results:

(a)	1914	2,714,902	litres
	1916	2,098,902	"
(b)	1914	515,278	"
	1916	374,462	"

The quantities of milk supplied in 1916 were thus equal to 77 and 72 and cent. of those supplied in 1914.

For the same period the Graz Federation of Agricultural Co-operative Societies stated that the supplies had been reduced to 65 per cent. of the pre-war supply. The Scharding Central Co-operative Society for the Sale of Butter (Upper Austria) reported that the supplies in the same period had fallen to 42 per cent.

The other circumstance from which the co-operative dairies had to suffer during the War was the result of the measures by which the Government, with the aim of keeping the cost of living low for the bulk of the population, introduced maximum prices. These far from covered the cost of production and consequently on the one hand did away with all interest in production and on the other led to a clandestine trade where in order to obtain the goods higher prices were willingly paid.

An Ordinance of 1 August 1914 (3), containing regulations for the supply to the nation of the first necessities of life, put obstacles in the way of prices reaching their natural level. On more rigorous lines was the Ordinance of 24 March 1917 (4) directed against the artificial heightening of prices.

Since the co-operative societies could not pay other than the maximum official prices, many members withdrew from the organizations and

(1) WIRTSCHAFTSSTATISTISCHE MATERIALIEN ÜBER DEUTSCHÖSTERREICH. Vienna, 1919.

(2) *Oesterreichische landwirtschaftliche Genossenschaftspresse*, No. 339, 10 May 1917.

(3) *Reichsgesetzblatt*, No. 191.

(4) *Reichsgesetzblatt*, No. 131.

sold their produce to dealers and to consumers who took the goods straight from the farm.

Particularly prejudicial to the co-operative societies was the circumstance that in fixing the maximum prices not enough account was taken of the quality of the produce, so that the work necessary to turn out good stuff was not adequately rewarded. Only towards the end of the War were the more highly finished products paid at an adequately higher rate.

Although the co-operative societies sustained severe losses in consequence of these regulations, dictated as they were by the apparent interests of the consumers, they were nevertheless in the forefront in supplying the prescribed quantities of butter and milk to the receiving offices of the provision required by the State, a fact which gave fresh proof of the importance of these organizations for town provisioning. According to Hilmer the districts in which co-operation was prevalent (e. g., those of Datschitz and of Moravian Budwitz) supplied from 115 to 120 per cent. of the prescribed quantities, while districts without co-operative societies only yielded from 26 to 30 per cent.

A factor unfavourable to the working of the co-operative dairies was the increase in the general expenses, doubly noticeable from the decrease in the amount of milk handled. The rate of the general expenses of the German co-operative dairies in 1914 was 1.62 *Heller* per litre of milk; and in 1919 10.62 *Heller* per litre (The quantity of milk handled fell in the interval from 20,008 to 12,586 litres a day).

The following measures have still to be mentioned: the Decree of 14 August 1914, which laid down the general lines for the maintenance of dairy businesses during the war, named the General Federation of Agricultural Co-operative Societies in Vienna as medium for the sale of produce and spurred the co-operative societies to increased efforts in return for the subsidies they had received in peace time; the Decree of the same Ministry of 16 August 1914, dealing with the obligation of military service of those persons who had special agricultural abilities and were not replaceable by ordinary labourers; the Decree of 11 September 1914 by which the co-operative dairies were requested with the aim of making the provisioning of urban centres easier to get into touch with the latter with a view to the direct supply of the consumers: the Ordinance of the Ministry of the Interior of 26 November 1915 (1) which set up a commission for the provision of artificial ice and contained regulations for the supply of artificial ice to dairies and to despatching stations for milk. A passing mention may be made of the efforts of the Government to equip subsidiary supplies of labour capable of replacing persons attached to the freezing depots and called to the colours (2).

(1) *Reichsgesetzblatt*, No. 345, 26 November 1915.

(2) DIE FÜRSORGE DES NIEDERÖSTERREICHISCHEN LANDESAUSSCHUSSES FÜR DIE KRIEGS-
VERLETZTEN LANDWIRTSCHAFTLICHER BERUFE. — BERICHT DES LANDESKULTURRATES ÜBER
MILCHWIRTSCHAFTLICHE UNTERRICHTSKURSE FÜR KRIEGSINVALIDE. — KALLBRUNNER:
Measures taken during the War to Maintain the Supply of Agricultural Labour. *International Review of Agricultural Economics*, March-April 1922, p. 215.

§ 6. CO-OPERATIVE SOCIETIES FOR THE SALE OF EGGS.

The co-operative societies for the sale of eggs had begun to develop before the War in Lower Austria closely conjoined with the co-operative societies for the sale of milk, and afterwards in Upper Austria (also in close connection with the societies for the sale of milk, federated into the *Zentralbutterverkaufsgenossenschaft* of Scharding), and lastly in Galicia. They now found themselves in circumstances analogous to those exhibited by the co-operative dairies. In the first period of the War, thanks to the indefatigable work of the technical advisor on the breeding of poultry at the Ministry of Agriculture, George Wieninger, this form of co-operation continued to develop successfully in Upper and Lower Austria while in Galicia it came to an end on account of the Russian invasion.

The co-operative societies of Lower Austria which sold their produce at the branch depots of the *Niederösterreichische Molkerei*, alongside of the milk of the co-operative dairies, could even register an increase of sales in 1916, when 5,451,528 eggs were sold as against 1,815,276 in 1915.

By the Ordinance of 20 February 1916, supplemented by that of 20 May 1916 (1) the trade in eggs was centralized and put into the hands of the purchasing offices authorized by the Ministry of the Interior. Although the organization of these offices was repeatedly changed, and the agriculturists had frequently taken up a position against the system, in the field of co-operation the situation as to the sale of eggs, as well as their production and general consumption, grew steadily worse, so that these societies gradually ceased to exist.

The circumstances led to another interesting development of the production of eggs and poultry breeding in general, which received considerable support from the action of the Ministry of Agriculture, and also from the Government measures in respect to small gardens.

The success of this movement was remarkable, in spite of unfavourable circumstances, the want of grain and other feeds and the inexperience of many of the amateur breeders.

Up to August 1914 there were in working order in Austria only three large incubating stations (one in Lower Austria, one in Upper Austria and one in Bohemia): after the War there were 33 in Lower Austria alone, their capacity varying from 3000 to 5000 eggs. Of these 14 belonged to co-operative societies, 8 to companies and 11 to private individuals. Those concerned all belong to various co-operative societies and associations, which have all been brought into being by different Government offices.

Mention should be made of the attempt made in Vienna in 1915 by a women's association (*Reichsorganisation der Hausfrauen Oesterreichs*) to set up a co-operative poultry farm with the object of supplying eggs to members. Joint management by women living at a distance from the farm

(1) Contained in Nos. 48 and 146 of the *Reichsgesetzblatt*.

with a view to the utilization of kitchen waste proved impracticable, and the farm had to be turned into a co-operative undertaking on a smaller scale carried on by persons more directly interested

§ 7. CO-OPERATIVE SOCIETIES FOR THE SALE OF LIVE STOCK.

With the object of improving the meat supply, seriously endangered by the increased army consumption, by the losses occasioned by the War in Galicia and by the closing of Hungarian export trade into Austria (1) there were set up organizations for the sale of live stock. These were from the first conducted on co-operative lines, and most of them shortly afterwards transformed themselves into central associations.

We may mention among others the Carinthian Society for the sale of live stock (*Kärntner Viehwertungsgesellschaft*) of Klagenfurt, developed into a centre for the utilization of the flesh of animals that have had to be destroyed, instituted as early as 1910 by the Carinthian Federation of Agricultural Co-operative Societies (*Kärntner Verband landwirtschaftlicher Genossenschaften*). This originally numbered 16 adherent organizations, among which were the province of Carinthia, the co-operative federations, the butchers' associations, etc. This society which preserved its original co-operative character was obliged by force of circumstances to engage in the trade in butchers' beasts. Trade in draught animals was completely forbidden.

In such circumstances and with the low level at which prices were artificially maintained, a development of co-operative stock-breeding societies was impossible. The cattle shows, in former times supplying an incentive to breeders, were less frequented and often had to be given up. The consequences of the relinquishment of all forms of encouragement and of preferential measures were serious and lasting.

§ 8. MISCELLANEOUS CO-OPERATIVE SOCIETIES.

Potato-drying co-operative societies are a form of co-operation which assumed only very limited proportions before the War. The seven existing plants nearly all belonged in fact to private undertakings.

(1) The quantity of live stock brought into Vienna was

345,38½	head	in the second half year of	1914
211,859	"	first	" " " 1915
142,642	"	second	" " " 1915
102,643	"	first	" " " 1916

See also: MESSNER: *Die Viehproduktion und die Fleischversorgung Österreich-Ungarns*. Munich, 1916. — *WIRTSCHAFTSGEOGRAPHISCHE KARTEN UND ABHANDLUNGEN ZUR WIRTSCHAFTSKUNDE DER LÄNDER DER ÖSTERREICHISCH-UNGARISCHEN MONARCHIE*, Part 6. Vienna, 1919.

With the object of reducing to a minimum the waste unavoidable even if the better systems of preserving potatoes are adopted, the Government following the example of Germany (2) gave considerable encouragement to potato drying by co-operative bodies, granting the drying apparatus and accessories at special prices. The business was often joined on to a co-operative warehousing society already in existence. At the end of 1916 there were 24 of these establishments in Austria, but as a matter of fact, from the constantly increasing shortage of coal, they could be only very partially utilized.

The *co-operative grazing societies*, which had received much encouragement before the War, continued working through it, notwithstanding adverse climatic conditions and the little attention that could be given to the pastures. Their continued existence was due to the great want of fodder, and the foresight of the Government, who in the majority of cases released from military service in the summer months persons whose occupation was the care of live stock.

Although no particular success came of it, an interesting scheme of the Federation of Agricultural Communities at Friuli deserves mention. The aim in view was the finding of an occupation suitable for disabled agriculturists. An attempt was made (1), partly on co-operative lines and with ample encouragement from various public offices, to introduce silkworm breeding into the northern districts. An extensive propaganda was carried out, and efforts made to find a substitute for the mulberry leaf for feeding the caterpillars. The outcome of the attempts, particularly in Pohrlitz and at Nikolsberg in Southern Moravia, was not unfavourable, but no practical results were realized.

The *co-operative societies for the sale of flax* could record a satisfactory development, even apart from special regulations in their favour on the part of the Government, and although the cost of its preparation had gone up considerably: the reason of this was the growing profits, a direct consequence of the stoppage of imports from other countries. Thus the German co-operative societies of Bohemia showed an increase of sale profits of 138 to 430 *kronen*, but also an increase in the cost of preparation of 15 to 20 *kronen* for every quintal of flax scutched. Of much importance were the efforts of the Government to obtain seed for the flax-cultivators, a necessary and difficult task: before the War as a matter of fact all the seed was imported each year from the Baltic provinces of Russia.

The progress of the *co-operative societies for the preserving of vegetables* was favourable, in consequence of the large orders of the army commissariat and of the increase in the requirements of the civil population owing to the shortage of meat and flour. Among these societies there ranked

(1) BISSON: Die Trocknereigenossenschaften, in *Nachrichten des Verbandes hannoverscher Genossenschaften*, Part 5, page 31 Hannover, 1917.

(2) Oesterreichische landwirtschaftliche Genossenschaftspresse, pages 6,173 and 6,200. Vienna, 1917.

first the *Sauerkrautgenossenschaft* of Mödritz near Brunn, which in 1910 reached the maximum production of 1,959,640 kilos of Sauerkraut (430,000 kilos in round numbers were delivered to the army).

On the other hand things went very badly with the business of the *co-operative distilleries*, and for the most part they had to close down their works. Only those producing yeast could continue working while using only sugar beet and spoiled potatoes. The utilization of cereals and sound potatoes was forbidden by the Ordinance of 27 October 1914. Of course the stills that went on working suffered greatly from the shortage in coal and malt. A satisfactory year's balance sheet could only be shown by those distilleries that took to potato-drying and dried on the State account potatoes and sliced beetroot. Potatoes that were difficult to sell in time of peace, so that for that reason they found their way to the distillery, naturally found a ready sale in time of war.

Co-operative mills suffered from the State control of cereals, from the coal shortage and from the competition whether of the large mills which could get plenty of orders from the *Kriegsgetreidegesellschaft* or of the small mills which could easily eke out resources by accessory occupations of all sorts and by grinding quantities of cereals illegally kept back from the requisition.

The *co-operative threshing societies* also suffered during the War, largely because they fixed too low a rate for the use of the machines. But the lack of fuel and of lubricants and the difficulty in procuring them, and finally the decrease in the number of hours during which the machines were employed (1) a consequence of the diminution of the crops, all contributed to the failure of these bodies which in time of peace had barely succeeded in holding their own. A number of them were actually dissolved during the War.

The *co-operative societies for the supply of electricity* exhibited favourable progress, though with little help from the Government, which bought up all the copper. They became necessary however to agriculture in the absence of petrol, candles or benzine. Their chief development was nevertheless after the War, when the restrictions of the Government control of metals became less.

The *co-operative society for the sale of resin* at Piesting near Vienna also did well. Before the War it had suffered from foreign competition, but on the incidence of war it acquired a kind of monopoly, whereby the raw products of the members could be sold on good terms and a very satisfactory progress noted.

The co-operative societies which had been set up before the war in the neighbourhood of the coast were unfortunately obliged in consequence of the War to give up work or at least greatly to restrict their activity.

(1) The co-operative threshing societies of Bohemia registered 10,808 hours of employment of the machines in 1914 and 8,060 in 1919.

CANADA.

CO-OPERATION FOR THE MARKETING OF AGRICULTURAL PRODUCE AND THE SUPPLY OF FARM REQUISITES.

A rich, but scattered, material exists for the study of agricultural co-operation in Canada. Apart from a few official reports it takes the form of articles in the *Agricultural Gazette of Canada* and other agricultural periodicals. The following list of sources utilized in the compilation of this study is by no means complete, only the more important articles being indicated.

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The agricultural co-operative movement is of comparatively recent origin in Canada, and its progress in recent years is due, amongst other causes, to the active encouragement given to it by the Federal and Provincial Departments of Agriculture and to the conditions arising out of the War. Canada being a comparatively new country, the development of agricultural co-operation has necessarily proceeded on somewhat different lines from those which it follows in older countries. The study which we have present offers, therefore, interesting contrasts with agricultural co-operation in European countries. Perhaps the most striking difference is the early application of co-operation to the sale of the staple agricultural products of the country and the more rapid development of this form of co-operation in comparison with co-operative credit (1) and the co-operative purchase of farm requisites.

§ 1. LAWS RELATING TO AGRICULTURAL CO-OPERATION.

There is no general Dominion Co-operative Associations Act in Canada, this branch of legislation being left to the individual provinces to develop according to their needs. The legislation under which co-operation has been and is being carried out is very varied, co-operative associations having been formed under joint-stock company laws, provincial co-operative associations acts, and special incorporating acts. In this section we give an outline of the general legislation connected with agricultural co-operation in various provinces. Any special legislation will be mentioned during the course of the articles as may be necessary.

Saskatchewan

The main provisions of the Saskatchewan Agricultural Co-operative Associations Act, Chapter 62 of the Statutes of 1913, amended 1915 and 1920, are as follows :—

Any five or more farmers who desire to associate themselves together as an incorporated association with limited liability, may be registered as such upon signing in duplicate a memorandum of association and filing it with the Registrar of Agricultural Associations of the Saskatchewan Department of Agriculture and upon paying a registration fee of \$4.50. Associations registering under the Act may engage in co-operative production and marketing and the purchasing and selling of supplies, such selling only to be to their shareholders or to the Saskatchewan Grain Growers' Association. The word "supplies" is here interpreted to mean building and fencing material, flour, feed, and such other commodities as may be shipped in car-loads and distributed from a warehouse. The word is not to be interpreted as applying to a retail business.

(1) We do not deal with co-operative credit in this article. The subject was dealt with by Prof. W. T. JACKMAN in his article on "Rural Credits in Canada", published in our issue of August-September 1921.

Associations may purchase goods on credit from other agricultural co-operative associations, or from any other company, association or society incorporated by special Act of the Province, having objects wholly or in part similar to those of agricultural co-operative associations (This includes the Saskatchewan Grain Growers' Association).

The number of directors may be three, six or nine, and one-third holds office until the first annual meeting, one-third until the second and one-third until the third annual meeting. Directors may pledge the credit of their association for money temporarily borrowed to pay for goods purchased, or expenses incurred in connection therewith. But the associations must sell their supplies for cash. The associations are required in handling farm supplies to deal only in bulk quantities, distributing direct from the railway or warehouse.

The proportion of agriculturists in the associations must be 75 per cent., and no transfer of shares is allowed which would reduce the total number below that percentage. Each member may only have one vote regardless of the number of the shares he may hold and a member cannot vote by proxy. The directors must so apportion the net profits as (a) to set aside 15 per cent. for a reserve fund until that fund equals at least 30 per cent. of the paid-up capital; (b) to pay interest on the paid-up capital stock not exceeding 6 per cent.; (c) to divide the remaining profits among the patrons of the association, whether shareholders or not, in proportion to the volume of business done, unless, by bye-law, it be provided that the dividend due to a non-shareholder may be retained and credited to him on account of capital stock until an amount is accumulated equal to the par value of one share. The patron then receives a stock certificate and can thereafter share in the dividends like the other shareholders.

Under the Act it was made incumbent upon all co-operative associations to adopt a standard set of bye-laws to which all must conform, though each association may afterwards adopt such supplementary bye-laws as may be necessary to regulate their own line of business.

Alberta.

Agricultural co-operation in Alberta is dealt with by the Co-operative Associations Act, Chapter 12, 1913. Under the authority of this Act, any seven or more persons who desire to associate themselves together as an incorporated association of limited liability, for the purpose of carrying on any labour, or fulfilling the requirements of any contract or undertaking by, or on behalf of, labourers, or for the purpose of conducting and carrying on any co-operative store or business, whether wholesale or retail, may do so by filing with the Registrar of Joint Stock Companies a properly executed memorandum together with a copy of the rules and bye-laws agreed upon. The number of shares to be issued is unlimited but no member can have more than one vote. The shares may be payable by instalments not exceeding 25 per cent. per instalment. Shares shall not be

transferable unless so provided by the rules. The association may repurchase shares held by any member.

In January of every year the association must send to the Registrar a general statement or annual return in such form as the Registrar requires of the receipts and expenditure, funds and effects of the association as audited, showing separately the expenditure in respect to the several objects of the association. The rules may provide for the advancing of money by the association to members on the security of real or personal property. They may also provide for the investment of any part of the association's capital in shares or on the security of any other association regulated under the same Act or of any other Provincial corporation of limited liability. The profits of the association may be applied to any lawful purpose. Disputes between members must be decided by a Board of Arbitration as provided by the rules, and from the decision of the Board there is no appeal. Any two or more of the associations may amalgamate.

British Columbia.

British Columbia, as far back as 1897, in the Farmers' Institutes Co-operation Act provided for co-operation for economic purposes. No member of an association formed under that Act could acquire more than one-tenth of the stock allotted and a member was restricted to one vote. This Act, amended in 1898, 1899 and 1902, was finally in great part repealed and re-enacted in 1909 by the Act entitled Farmers' Institutes Co-operation Act Amendment Act. This formed the basis for more comprehensive legislation in the Agricultural Associations Act, Revised Statutes for 1911, Chapter 6, Part II, amended by Chapter 2 of the British Columbia Statutes for 1913.

Part II deals with associations with share capital, and provides that 25 or more persons, on presentation of a properly signed memorandum of association to the Minister of Agriculture, may unite themselves together for any or all of the purposes following:—

(a) The manufacturing of cheese, butter, cider, jam, pickles and spray mixtures, and the drying and canning of fruit and vegetables;

(b) The keeping of swine and the manufacture and sale of the various products resulting therefrom;

(c) The dealing in poultry, eggs, milk, cream and all other agricultural and horticultural products and in supplies required by patrons of such associations;

(d) The dealing in flour, feed, fertilizers, spray materials and their accessories, and in foods of all kinds for farm stock for the purpose of supplying the same to the patrons of the association;

(e) The erection and maintenance of a cold storage plant and the sale of ice; and

(f) For any purpose which may be approved by the Minister of Agriculture having for its object the development of agriculture.

Liability of a shareholder is limited to the amount of his share or

shares subscribed for and not paid up. A shareholder may have shares to an amount mentioned in the bye-laws, but not to exceed one-fourth of the share capital. Shares are transferable subject to the consent and approval of the association, and each share carries a vote.

Section 44 of the Act provides : " An association shall be deemed to be formed upon the co-operative system if provision is made by its constitution and bye-laws for securing to all producers who are members of the association a share in the profits of the association in proportion to the value of the produce supplied by them, after payment of a dividend upon the capital stock not exceeding six per centum per annum. Provision shall also be made for enabling all producers in the district to become members of the association by limiting the number of shares to be held by any single member, or by other effective regulations."

The association may borrow from the Government, for the purpose of erecting, or acquiring and maintaining, or operating within the province, any of the industries above enumerated, a sum not exceeding 80 % of the subscribed capital, the loan being subject to the following requirements, namely:—

(1) That the district within which it proposes to operate is competent and fitted for its support, and that there is a reasonable prospect of the association being a financial success

(2) That the location of the association is such as to prevent encroachment upon the limits of an established association, while allowing a radius to the proposed institution of at least six miles.

(3) That the association has acquired a site upon which to erect the necessary plant and buildings.

(4) That the plans of the building and the nature and cost of the proposed plant and equipment have been submitted for approval.

In addition the association must send to the Minister of Finance and Agriculture a statement showing the number of members of the association; the amount of stock paid up, which must be at least 50 per cent. of the subscribed capital; all mortgages or charges; any other information as may be required.

The loans are repayable within 20 years at 4 per cent. and with a sinking fund.

There is also a general Co-operative Associations Act which was passed in 1920 to replace an earlier act. Under the Act of 1920 any five or more persons may form an incorporated association for the purpose of carrying on any lawful business, trade or industry, other than the construction and operation of railways, the business of banking, of insurance or of a trust company. Every such association must include in its name the word "co-operative" as well one of the words as "association," "society," "union," or "exchange," but not the word "company," nor the word "limited." In the case of an association dealing with agricultural products no member shall be entitled to vote at any general meeting or be appointed a director of the association unless he has sold his main crop or produce of the year through the association, or undertakes in writing to do so dur-

ing the ensuing year, or has received consent of the directors to dispose of his crop or produce otherwise.

A member may hold any number of shares in the association. Dividends up to 8 % per annum may be paid and the remaining profits distributed among the patrons of the association whether members or not and whether vendors or purchasers. The liability of a member is limited to the amount unpaid on the shares held by him.

Manitoba.

The present Co-operative Associations Act was passed in 1916. It is a general Act covering any branch of co-operation. Under this Act seven or more persons may join together as an incorporated co-operative association. The registered name of an association must contain the word "co-operative". A heavy fine is provided for any non-co-operative company which uses the word "co-operative" in its title. The liability of the members must be limited and the word "limited" must be the last word of the title of every co-operative association. The whole business of associations must be on a cash basis. The credit of members may only be pledged for the purchase price or rental of business premises, salaries and incidental expenses, or for moneys temporarily borrowed to pay for goods purchased or expenses connected with goods purchased. The amount of capital, the amount of the shares and the manner of payment are left to the decision of each individual association. The par value of a share, however, must not exceed thirty dollars. Shares may be assigned or transferred, or may be repurchased by an association, with the authority of the directors and provided that the transaction does not reduce the total number of shareholders below seven or below 75 per cent. of the maximum number at any previous time during the life-time of the association. Associations may invest any part of their capital in any other limited liability association or corporation which has objects wholly or in part similar to the co-operative associations registered under the Act, and any corporate body may hold shares in any co-operative association registered under the Act.

The board of directors of an association may be six or nine. One third must remain in office for one year, one-third for two years and one-third for three years. The board of directors must elect a president and vice-president from amongst themselves but have the option as to whether the secretary-treasurer is to be a director. A majority of the directors constitutes a quorum. Annual meetings must be held in January or February, and semi-annual meetings in July of every year. At any meeting two-fifths of the shareholders constitute a quorum. Each shareholder has one vote only, regardless of the number of shares he may hold. No shareholder may vote by proxy. The adoption of amendments to bye-laws and of supplementary bye-laws rests upon a two-thirds majority vote of the shareholders and upon the approval of the Registrar of Co-operative Societies.

The directors must apportion the profits of the association by (a) setting aside not less than ten per cent. for a reserve fund until the fund is equal to at least thirty per cent. or more of the paid up capital stock; (b) paying interest on the paid up capital stock at a rate not exceeding seven per cent. per annum; and (c) by dividing the remainder of the profits amongst the patrons of the association who are shareholders in proportion to the volume of business done with the association. It is provided, however, that associations may allow an equal rate of dividend to non-shareholder patrons on the amount of business done with them. In this case the dividend must be credited to the account of the non-shareholder patron until an amount has been accumulated equal to the par value of one share. A stock certificate is then issued to the patron and he thereafter participates in the dividends as do the other shareholders. It is also provided that associations may pay employees a dividend on wages or salaries equal in rate to the dividend paid to shareholders. If an employee is not a shareholder this dividend is credited to his account until an amount has accumulated equal to one share; a stock certificate for the share is then issued to him. All associations must send in an annual report to the Registrar of Co-operative Societies.

Nova Scotia.

The agricultural co-operative societies of Nova Scotia are incorporated under one of three Acts — An Act to Facilitate the Incorporation of Farmers' Fruit, Produce and Warehouse Associations (Chapter 33, Statutes of Nova Scotia, 1908); An Act to Further Facilitate the Incorporation of Farmers' Fruit, Produce and Warehouse Associations (Chapter 22, Statutes of Nova Scotia, 1912); An Act to Encourage the Incorporation of Farmers' Co-operative Societies (Chapter 4, Statutes of Nova Scotia, 1914).

The Act of 1908 enacts that any number of persons not less than five may form themselves into a limited liability company, provided no subscriber takes less than one share, for the purpose of buying, selling, bartering, taking on consignment, dealing in and packing fruit, fodder and other farm produce; buying, selling, leasing, erecting, improving, managing and operating storehouses, warehouses and other buildings which may be incidental or conducive to the purposes of the company, and carrying on the business of warehousemen in connection therewith. The company must be registered with the Registrar of Joint Stock Companies. Every company must have the word "Limited" as the last word of its name. The capital stock of the company must not be less than \$1,000, of which one-half must be subscribed. The number of directors of a company must not be less than three nor more than seven; they must be elected annually. At all annual and general meetings each shareholder has one vote for each share held by him.

The Act to Further Facilitate the Incorporation of Farmers' Fruit, Produce and Warehouse Associations provides that any number of com-

panies, not less than ten, incorporated under the provisions of Chapter 33, Statutes of 1908, or for a like purpose under the Nova Scotia Companies Act, may form themselves into a central company for the buying, selling, bartering, taking on consignment or disposing of on consignment and packing and dealing in fruit, fodder and other farm produce as well as fertilizers and artificial manures of all kinds; and for the warehousing of the above as well with cold storage as otherwise, and marketing and transporting and carrying on the business of warehousemen and shippers of fruit, fodder and other farm produce. The shares taken by any company in the Central must not be less than 20 % of the nominal capital of that company. The Central may buy, build, lease, improve, manage and operate any buildings it may require, and may sell, sublet or otherwise dispose of them. It may lease, buy, or otherwise acquire real estate and sublet, sell or otherwise dispose of the same. Wharves, box cars, refrigerator cars and steamships and other vessels may be built or acquired by the Central. For the purpose of organizing a central company, each shareholder company sends three of its shareholders to the general meeting who elect from amongst themselves a president, a secretary and one director for each shareholder company. This procedure is carried out at every following annual meeting. The capital stock of the Central must not be less than \$50,000. All calls made upon stock must be paid by the subscribing company, and the capital stock of the shareholder company is liable for all calls made by the directors of the central company. The ordinary executive work of the Central is done by the board of directors who, at their meetings, have as many votes as the company they represent holds shares in the Central. The directors may appoint a business manager. No one call upon stock may exceed 25 % of the subscribed stock. The disposal of the profits, either as a dividend, working capital or reserve fund, is left to the discretion of the directors. The central company must be of limited liability and the word "Limited" must form a part of the name of the Central.

An amendment to this Act, passed in 1913, gives to local and central companies the power to deal in all kinds of spraying and fruit packing materials and implements, flour and mill feeds and general merchandize.

The Farmers' Co-operative Societies Act, 1914, enacts that any farmers' co-operative society may be incorporated under the Nova Scotia Companies' Act and that the Farmers' Co-operative Societies Act applies to it provided that the society is composed of not less than fifteen persons; that each subscriber resides in a farming district and is actually engaged in farming; and that its objects are (a) to purchase for the members or shareholders, manures and artificial fertilizers of all kinds, seeds, feeding stuffs, spraying materials and outfits, and farming implements of all kinds; (b) to ensure the purity of the feeding stuffs, seeds, manure and fertilizers furnished to the members or shareholders and to have any requisite tests or analyses made for the purpose; (c) to secure the best market for the sale of the products of the farms of its members or shareholders, and to arrange for their transportation; (d) to become a member or a shareholder by original subscrip-

tion or otherwise, or a director or other officer of any other company which is or may be incorporated under the Nova Scotia Companies' Act and which provides under its Memorandum of Association that each of its members or shareholders must be a society incorporated under the Nova Scotia Companies Act and one to which the Farmers' Co-operative Societies Act applies.

The Governor-in-Council may appoint an Inspector of Farmers' Co-operative Societies who would be under the direction of the Provincial Secretary. The Inspectors' duties are to organize farmers' co-operative societies, to assist and advise these societies in their organization and work and generally to increase their efficiency. The Inspector must report annually respecting the societies; he must also collect and disseminate information on agricultural co-operation in other countries. The Inspector has the same powers as one appointed under the Nova Scotia Companies Act and any officers and agents of a society refusing to produce for examination any required book or document incur the same penalties as provided under the Companies Act.

Quebec.

Co-operative Agricultural Associations in Quebec are provided for under the Revised Statutes of 1909, amended in some important particulars by the Statutes of 1910-11, and in 1912, 1918 and 1920. The objects for which an Association is formed must be one or more or all of the following:— The improvement and development of agriculture or of any of its branches; the manufacture of butter or cheese, or both; the sale and purchase of live stock, farm implements, commercial fertilizers and other articles useful to the agricultural classes; the purchase, preservation, transformation and sale of agricultural products.

The association must consist of at least 25 persons to form a joint stock company of variable capital and limited liability, and the shares be of the value of \$20 each, payable in 4 yearly instalments of \$5 each, or as the association may decide by bye-law. No member can hold more than \$20 of capital stock nor more than \$1,000 of the same. The shares are transferable only to persons or associations who have been accepted by the board of directors. Agricultural societies and farmers' clubs may take shares in the association with the permission of the Minister of Agriculture. Societies for the manufacture of dairy products may also become members of a co-operative association. An agricultural co-operative association may become a member of another agricultural co-operative association, but it may not subscribe more than one share. An association may acquire and hold lands, and may sell, lease or otherwise dispose of them, but must not hold more than five hundred acres at a time.

The affairs of the association are managed by a board of five directors, who elect from amongst themselves a president and vice-president. Three directors form a quorum. All directors are elected or re-elected at the annual general meeting. Every director of a farmers' club, agricultural

society, breeding syndicate, society for the manufacture of dairy products, or other co-operative society, which is a member of another co-operative association may be appointed a director of that association and remains in office until the election of his successor even if he has ceased to be a director of his own society. The association or its board of directors may make, amend or repeal the bye-laws relating to the admission of shareholders, the transfer of shares and the maximum number of shares for which a shareholder may subscribe. The board may borrow on the security of the unpaid portion of the shares subscribed. The total amount of the sums borrowed, however, must not exceed four times the aggregate amount of the subscribed shares and reserve fund. The services of the board of directors must be gratuitous but if it is not against the bye-laws of the association the president may be appointed manager of the association and receive remuneration for his services in that capacity.

The decisions of the general meetings are by majority of votes. Each shareholder has one vote only whatever may be the number of shares he holds. No voting by proxy is allowed. The president or vice-president of any shareholder society represents that society at the general meetings and votes in the name of the society which he represents. To be entitled to vote a member must have subscribed for one or more shares at least three months before the meeting and have paid at least three days before the meeting at which he intends to vote all yearly instalments due on his shares, but in the case of the first general meeting after the formation of the association, he may vote no matter at what date previously he has subscribed for his shares.

The general meeting decides the amount of the profits to be allotted, and may provide for a reserve fund. So long as this fund is not equal to the subscribed capital the total amount of the dividends distributed must not exceed eight per cent. of the paid up capital. When the reserve fund is equal to or greater than the subscribed capital the association may, after having paid dividends of not more than eight per cent. and after having set aside at least ten per cent. of the profits for the reserve fund, distribute the remainder of the profits amongst the shareholders according to (a) the amount paid by each shareholder for his purchases from the association; or (b) the amount paid by each shareholder for the preservation, preparation or transformation of the products of his farm or live stock; or (c) an amount equal to the value of such products; or (d) the amount received by each shareholder for the produce of his farm or live stock when sold through the association; or (e) the aggregate of such amounts or any of them. An association which buys and sells dairy produce may pay dividends to a shareholder who is a manufacturer or proprietor of a dairy factory in proportion to the dairy products of the factory sold by or through the association. A shareholder who buys from the association produce of shareholders sold by or through the association or prepared or transformed by it, cannot receive dividends upon such purchases.

The property of co-operative associations is exempt from all Government taxes. Associations may auction any registered thoroughbred stock

belonging to them and any agricultural products belonging to members. The books and bye-laws must be open for inspection by members at least one day a month. The Minister of Agriculture may have the books examined at any time. The accounts of associations must be closed on 31 December of every year. A statement of affairs must be made out during the first week in January and a copy sent to the Minister of Agriculture before 15 February. The penalty for neglect or refusal is \$5 per day for every day after the required date, and any director or manager who knowingly permits such a default is liable to the same penalty.

If an association ceases operations for two years the Minister of Agriculture may, at the request of the board of directors, declare the association dissolved, realize its property and apply the proceeds to the payment of the association's debts and divide the assets amongst the shareholders in proportion to the shares subscribed and paid.

Ontario.

In Ontario there is no special co-operative law. Many co-operative associations have, however, been organized under the old general Stock Companies Act. This Act has been amended and consolidated in Chapter 31 of the Statutes of 1912. In the Statutes of 1910 there is a provision which has been re-enacted in the Statutes of 1912, by which "the provincial secretary may, under the seal of his office, have, use, exercise and enjoy any power, right or authority conferred by this Act on the Lieutenant-Governor but not those conferred on the Lieutenant-Governor-in-Council". Under this provision and the general clause which precedes it, 5 or more persons who have become subscribers to a memorandum of agreement in due form, may obtain a certificate of incorporation from the provincial secretary. A great deal of latitude as to constitution and byelaws, rules and regulations, etc., is permitted.

The Department of Agriculture with the consent of the Minister has adopted certain model bye-laws as a basis on which to form co-operative associations for the province. The bye-laws do not form part of the letters patent granted by the provincial secretary and can be amended at any time to suit the needs of the association and to meet individual cases and circumstances.

§ 2. THE CO-OPERATIVE SALE OF GRAIN.

The grain industry is the most important branch of agriculture in Canada and was the first to which co-operation was applied on a large scale. The chief provinces devoting their energies to grain growing are the three prairie provinces of Manitoba, Saskatchewan and Alberta.

Associations of Grain Growers. — Early in the present century three great agricultural associations were formed in these provinces. The Saskatchewan Grain Growers' Association was established in 1901; and in the following year were formed the United Farmers of Alberta and the

Manitoba Grain Growers' Association, the name of which was changed in 1920 to the United Farmers of Manitoba. These associations, each of which was incorporated by an Act of the provincial legislature were precluded from engaging in business by the clauses of their constitution. Their energies were directed in the main to watching legislation relative to the grain growers' interests, particularly that affecting the marketing, grading and distribution of their grain, and to suggesting to Parliament from time to time the passing of any new legislation to meet changing conditions and requirements.

In 1915 the Saskatchewan Grain Growers' Association obtained the necessary alterations to its charter in order to become a co-operative business association, dealing, purchasing and shipping the products of, and the supplies necessary for the farm. It is permitted to pledge its credit according to the methods usually adopted by any commercial company in the ordinary way of business, and in addition it may issue bonds or debentures, the only restriction being that the issue, sale and transfer thereof must be limited to members of the association, to registered agricultural co-operative associations, to associations having similar objects, and the members and shareholders of such associations.

Since the Association started trading it has built up a big business, which is carried on through its trading department at the head office in Regina. Its turnover in 1920 was \$1,400,000, and in 1921 it was \$900,000 with a profit of \$6,616.

The Grain Growers' Grain Company.— In 1905 a committee was appointed by the grain growers' associations to study the question of marketing. The result was the organization, in 1906, under the Manitoba Joint Stock Companies' Act, of the Grain Growers' Grain Company, Limited, for the purpose of doing a commission business, at that time in grain only. In view of the rapid development of its business the Company applied for Dominion incorporation and, in May 1911, was granted a Dominion Charter by Act of Parliament. By that Act the capital was fixed at two million dollars divided into shares of \$25 each, no shareholder being allowed to hold more than 40 shares. Only farmers or owners or lessees of farms, or their wives, could be shareholders, except by a resolution adopted by two-thirds of the shareholders of the company. Each shareholder had but one vote. At the annual meeting, if the profits justified it, 8 per cent. was paid on the par value of the subscribed capital stock. A certain sum was then placed to the reserve fund, and, if a surplus still remained, it was distributed amongst the shareholders, on such a basis and in such proportion as the meeting determined. The reserve fund could be used, together with other capital, in carrying on the business of the company.

The objects of the company were "to produce, manufacture, import, export, buy, sell, deal in and deal with all cereals, fruits, vegetables, animal or other products of the farm, all products or by-products thereof, and all machinery, implements, goods, wares and merchandize which may be used in the production and manufacture of products of the farm, and all articles, substances and things which may be utilized in the said

production or in the maintenance, cultivation, improvement and development of farms; and without restricting the generality of the foregoing expressions, to carry on the business of a farmer in all its branches."

The Saskatchewan Co-operative Elevator Company. — Five years later, the Saskatchewan Co-operative Elevator Company was formed on the initiative of the Saskatchewan Grain Growers' Association. It was incorporated in March 1911 by an Act of the Saskatchewan Legislature which gave it the power to construct, acquire, maintain and operate grain elevators within Saskatchewan, to buy and sell grain and generally to do all things incidental to the production, storing and marketing of grain.

The capital stock of the company is not a fixed amount as is the case with ordinary companies; it may be changed from time to time by the Government. This is because the Government advanced to the Company a large percentage of its subscribed capital and therefore retains control of the amount of stock the company may issue. The stock is divided into shares of fifty dollars which can be held only by farmers, and no person can hold more than twenty shares. Only 15 per cent. of the face value of the shares need be paid in cash; the remaining 85 per cent. is subject to call. The liability of a shareholder is limited to the amount of stock he holds.

The central management is in the hands of a board of nine directors. Wide powers have been given to the Board of Directors because such a central body has a great advantage over a number of scattered units in such matters as selling the grain, employing the managers, inspecting elevators and records, purchasing building materials and supplies, making financial arrangements, etc.

Any number of shareholders may request the Directors of the company to buy one of the elevators at their shipping point, or to build a new one. It must appear to the satisfaction of the Directors "that the amount of shares held by the supporters of the proposed elevator is at least equal to the value of the proposed elevator, that fifteen per cent. of the amount of such shares has been paid up and that the aggregate annual crop acreage of the said shareholders represents a proportion of not less than 2,000 acres for each 10,000 bushels of elevator capacity asked for." These requirements are designed to secure and retain the interest and support of a sufficient number of the actual grain growing farmers to ensure the success of the local elevator, even if no grain other than that of the shareholders were handled by the elevator. No pledge or guarantee of any kind is required of the shareholder; he is as much at liberty as any other farmer to ship his grain as he pleases or to sell to the highest bidder; his interest in the company, however, makes it practically certain that he will do his business through it.

Each local elevator has a Board of Management consisting of five of the local shareholders elected annually. At all meetings of the supporters of the local elevator each shareholder has one vote for each share held by him up to five. The local elevators are represented by delegates at

the general meetings of the company; each delegate has but one vote and no proxies are allowed.

For the work of organization the Act provides for a Government loan not exceeding \$6,000 repayable in twenty annual instalments. The Government advances to the company in aid of the acquisition or erection of any local elevator a sum not exceeding 85 per cent. of the estimated cost of the elevator. The company has wide borrowing powers on the security of the part of its stock that is not paid up, on the security of grain, and on real or personal property, etc.

The balance remaining of the money earned by the company, after expenses of operating and maintaining the elevator and the amount due to the government on loans are paid, is distributed as follows: From net profits there may be paid to shareholders dividends not exceeding 10 per cent. Any surplus over and above that but not exceeding 50 per cent. may at the company's discretion be paid (a) to the shareholders proportionately to the volume of business done, or (b) to the supporters of locals on the basis of aggregate relative net financial results of the respective locals, or (c) to the shareholders and supporters of locals according to each of the two preceding schemes.

In 1920 an Act to Amend an Act Respecting the Saskatchewan Co-operative Elevator Company, Limited, was passed. By this amending act power is taken to authorize the government from time to time and on such terms and conditions as may be agreed on with the company to lend to the company for the purpose of aiding in the construction or extension of terminal elevators at points outside the province, or towards reimbursing in the company moneys already expended for that purpose, a sum not exceeding fifty per cent. of the cost or estimated cost of such elevators or of the extensions.

While no amount is specified in this Act, it was stated in the Legislature that it was proposed to advance one million dollars for which the Government would take a first mortgage on the entire plant including the hospital elevator.

Table I (page 485) shows the progress of the company from 1911 to 1921 inclusive.

The report for the year ended 31 July 1921 states that a net profit is shown of \$279,414, from which an 8 per cent. dividend was paid, leaving \$167,430 in hand.

During the period of control of grain marketing, some important services in connection with the work of the Country Elevator and Commission Departments were suspended. These departments have now resumed their normal activity. During the year 1920-21 the Country Elevator Department handled 26,195,943 bushels of grain through the 320 elevators operated, an average of 81,862 bushels per elevator. In addition to the grain handled through the elevators, 1,794,494 bushels were shipped over the platforms, making a total of 27,990,437 bushels. Of this total 27,125,418 bushels, or about 97 per cent. of all the grain taken in at the country elevators, was handled by the Commission Department. The

TABLE I. — *Statistics of the Saskatchewan Co-operative Elevator Company Limited, from 1911 to 1921.*

Year	Number of elevators at 31 July	Bushels of grain handled during year ended 31 July	Number of shareholders at 31 July
1911	40	—	2,580
1912	140	3,250,000	(1)
1913	137	13,000,000	9,000
1914	192	19,465,290	12,500
1915	210	13,744,653	15,000
1916	230	43,000,000	16,000
1917	258	34,558,637	20,000
1918	298	27,066,261	22,000
1919	308	21,841,556	22,000
1920	324	20,324,772	22,000
1921	339	27,990,437	22,000

(1) Figure not available.

Terminal Elevator Department, in charge of the terminal elevators at Fort William and Port Arthur handled 21,255,856 bushels; the report states that although the combined capacity of their terminal elevators constitutes only about 10 per cent. of the total available accommodation, approximately 15 per cent. of all the grain received at Fort William and Port Arthur was handled by them.

The Alberta Farmers' Co-operative Elevator Company. — The example of Saskatchewan was soon followed by Alberta, where the United Farmers formed in 1913 the Alberta Farmers' Co-operative Elevator Company. This was also incorporated by an Act of the provincial legislature. The incorporating Act embodies most of the provisions contained in that of the Saskatchewan Co-operative Elevator Company. The amount of capital is to be fixed from time to time by the Lieutenant-Governor-in-Council. A member cannot hold more than twenty shares of \$60 each, and he has but one vote. The affairs of the company are managed by nine directors who constitute the Central Board of Management and may receive remuneration.

In addition to operating grain elevators the Company may buy and sell and generally do all things necessary to the production, storing and marketing of grain; it may act as commission or general agents for any person, company or corporation in the purchase, selling, storing and delivery of any goods required by farmers. The Company could not start in business until twenty locals were organized. A local elevator may be organized by farmers owning or cultivating an annual grain crop acreage

of at least 6,000 acres tributary to any shipping point and subscribing for an amount of stock at least equal to the value of the proposed elevator, 20 per cent of the stock subscribed by shareholders desiring an elevator must be paid prior to the election or acquisition by the company of such elevator, and the remaining 80 per cent within four years from the date of subscription. The local Board of Management consists of five directors elected by the local shareholders, who also elect three delegates, or such other number of delegates as the Company by bye-law may determine, to attend the general meetings of the Company. At the meetings of the local shareholders as well as the meetings of the company members have a vote for each share which they hold. The local Board of Management have such powers and duties as are determined by the bye-laws of the Company or as may be delegated to the Board by the Directors.

Provisions is made for loans at 5 per cent from the Government for the purpose of aiding in the acquisition, erection, extension or re-modelling of any elevator, the loan not to exceed 85 per cent. of the estimated cost. Out of the surplus profits the Company may pay a dividend not exceeding 8 per cent. From the balance a certain amount, as the directors decide, shall be placed to a reserve fund. The remainder is divided amongst the shareholders and patrons on a *pro rata* basis according to the business transacted through the company by each.

The United Grain Growers, Limited. — The Grain Growers' Grain Company, Limited, and the Alberta Farmers' Co-operative Elevator Company, Limited, were amalgamated in 1917, the combined company being known as the United Grain Growers, Limited. The Head Office of the company is at Winnipeg. The company includes about 330 local associations and the total membership at 31 August 1920 was 35,929. Only persons who are farmers or owners or lessees of farms, or their wives, are eligible to hold shares in the company and no shareholder may hold more than one hundred shares. In no case is a shareholder entitled to more than one vote and voting by proxy is not allowed. The authorized capital stock is five million dollars divided into shares of twenty-five dollars each. The affairs of the company are managed by a board of twelve directors, elected for three years. Any shareholder owning one share in his own right and not in arrears with any call may be elected a director. The executive committee consists of a President, First Vice-President and three directors. Locals of the company are formed by the company directors who have the power to define the territorial limits of the local. No local must have less than forty shareholders who must have subscribed, among them, not less than two hundred and sixty-seven shares. A board of five members manages the business of the local. Each local is entitled to send one delegate to the annual and other meetings of the company, but any local having a membership of 188 or more may send two delegates.

The following table gives some details of the two primary companies and of the amalgamated company.

TABLE II — *Comparative Statement of the Grain Growers' Grain Company Limited, and the Alberta Farmers' Co-operative Elevator Company, Limited and of the two Companies when Amalgamated under the Name of the United Grain Growers, Limited, 1906-1920.*

Companies	Shares allotted	Capital subscribed	Capital paid up	Grain receipts	Profits
		\$	\$	Bushels	\$
The Grain Growers' Grain Company, Limited					
1 September 1906	1 000	25,000	5,000	—	—
31 June 1907	1,853	46,325	11,795	2,340,000	790
1908	2 932	73,300	20,385	4,990,541	30,190
1909	7 558	188,950	120,708	7,643,146	52,902
1910	14,131	353,275	292,957	10,332,645	95,663
1911	24,602	615,050	492,062	18,845,305	69,575
1912	27,321	683,000	586,472	27,775,000	121,614
31 August 1913	32,500	809,950	645,362	29,975,000	164,333
1914	42,477	1,061,925	771,409	29,920,225	151,081
1915	47 976	1,199,400	867,122	18 821,102	226,963
1916	57,605	1,440,160	1,073,180	48,375,120	572,804
1917	68,230	1,705,700	1,357,382	27,722,552	607,899
The Alberta Farmers' Co-operative Elevator Company, Limited					
30 June 1914	9,428	565 680	101,634	3,774,396	17,216
31 July 1915	12,127	727,620	163,809	5,039,100	26,826
31 August 1916	14,333	859,980	301,737	19,320,556	282,484
31 August 1917	21,527	1,291,620	563,689	16,375,333	230 502
United Grain Growers, Limited					
31 August 1918	115,642	2,891,050	2,159,763	29,879,672	441 760
1919	119 688	2,992,200	2,415 185	22,203,007	148,549
1920	125,208	3,130,200	2 608 547	24,503,237	463,676

The following figures show the number of elevators and flour warehouses owned by the company at 31 August 1920

	Alberta	Saskatchewan	Manitoba	Total
Elevators . . .	150	36	32	218
Flour warehouses.	148	30	55	233

In addition, the company leased 129 elevators in Manitoba

The company also operates two terminal elevators at the head of Lake Superior. The structure at Port Arthur holds 720,000 bushels and is owned by the company; the other, at Fort William, is leased from the Canadian Pacific Railway Company and has a capacity of 2,500,000 bushels.

The report of the United Grain Growers, Ltd., for 1920-21 shows that the profits for the year were \$233,743 (subject to government taxes) as compared with \$467,676 for the previous year. A 6 % dividend, amounting to \$161,709 was paid to the shareholders. A special reserve of \$50,000 was set up for contingencies and the sum of \$4,000 was transferred to the general reserve of the company which now totals \$1,765,000. The shareholders' capital and surplus amounted to \$5,196,556. The paid-up capital was \$2,765,685.

The Charter of the Company gives it very wide powers, so that, if found desirable, the company may legally expand its business activities in almost any interest of its shareholders. It has a farm machinery and supplies purchasing department and a live stock department, as well as the following subsidiary companies:—

1. The Grain Growers' Export Co., Incorporated, of New York, organized under the New York State Laws. This company deals chiefly in United States grain and in 1920-21 earned a profit of rather less than \$250,000.

2. The Grain Growers' Export Co., Ltd., incorporated under the laws of Canada, with head office in Winnipeg. This company is under the supervision of the Manager of the New York company. It did considerable business in 1920-21 and earned a profit of \$132,000. Some of the export business was handled through Vancouver.

3. The Grain Growers' Guide Publishing Co., Ltd., which publishes the official organ of the United Grain Growers, Ltd., and owns the Public Press, Ltd., by which it is printed. It has lately entered into an agreement with the Nova Scotia Apple Growers, Ltd., and the United Farmers' Co-operative, Ltd., of New Brunswick, for the issue of a paper under the name of the *United Farmers' Guide*.

4. The United Grain Growers' Sawmills, Ltd., which was formed for the cutting of lumber and its supply to the shareholders. In 1920-21 logging operations were discontinued and expenses will be kept at a minimum until such time as the cost of logging has come down to a point at which lumber can be manufactured at a profit.

5. The United Grain Growers' Securities Company, Ltd., which writes various kinds of insurance and operates a land commission agency.

6. The United Grain Growers (B. C.), Ltd., was formed for various purposes. Its main business was the distribution of supplies to British Columbia farmers. It has also a live stock branch which handled 3,540 carloads of live stock in 1918, 5,257 carloads in 1919 and 5,654 carloads in 1920. In 1920-21, the company was carried on at a loss and was accordingly disposed of.

Efforts to Organize a Wheat Pool.—In 1919 the wheat crop of Canada

was handled by the Canadian Wheat Board. In 1920 this control was discontinued and in consequence a plan was promulgated by the co-operative grain growers whereby the control should be taken by them. The matter was discussed at a meeting of the Canadian Council of Agriculture held in July 1920, and a committee, composed of the president of the United Farmers of Alberta, the Manager of the Saskatchewan Co-operative Elevator Company and the Manager of the United Grain Growers, Limited, was formed to enquire into the feasibility of the plan. This committee, the Wheat Markets Committee, reported favourably and it was decided to form a committee consisting of one representative each from the United Farmers of Alberta, the Saskatchewan Grain Growers' Association, the United Farmers of Manitoba, the United Farmers of Ontario and two representatives each from the Saskatchewan Co-operative Elevator Company and the United Grain Growers, Limited. This committee of eight was given power to select a ninth member. The committee was asked to make arrangements for the formation of a wheat marketing agency, to negotiate with the co-operative grain companies for the use of their facilities to any extent necessary for handling the wheat in the pool, to take the necessary steps to secure incorporation and to work out the details for financing the pool.

In addition to their report on the plan, the Wheat Markets Committee presented a draft agreement for consideration such as it was proposed to ask the grain growers of Canada to sign. The draft suggested that the central selling agency should be known as the United Farmers' Grain Corporation and that it should be a non-profit undertaking with its principal office at Winnipeg. The first clause bound the growers to deliver to the corporation for sale all the wheat grown by them at any place in Canada for five years. The corporation was to agree to sell the wheat at the best prices obtainable and to pay the whole amount received less handling, grading and selling charges. The corporation was to be authorized to establish selling, statistical or other agencies in any city in the world. The growers were to agree to deliver to or at the order of the corporation all wheat and the warehouse receipts covering it, when and where directed by the corporation. The corporation was to be given power to borrow money on the wheat delivered to it for sale and to exercise all the rights of ownership without limitation. The growers were to bind themselves to pay a forfeit of a certain amount per bushel on all grain sold other than through the corporation. It was agreed that the contracts signed would not become effective until the corporation had obtained similar contracts covering at least 60 per cent. of the wheat crop, approximately 10 million acres of wheat.

At first it was hoped to form the corporation in time to market the 1921 wheat crop, but this was not found possible owing to the size of the scheme and the many difficulties to be overcome and at the end of 1921 the Canadian Council of Agriculture decided not to proceed with the project but to ask the federal government to re-appoint the Wheat Board.

§ 3 CO-OPERATIVE LIVE STOCK MARKETING

The principal centres of the live stock industry of Canada are the provinces of Quebec, Ontario and Saskatchewan, and it is in these three provinces that the co-operative organization of shipping, grading, stock yarding and marketing has been most largely developed. It has also been organized, however, in the Maritime Provinces (Nova Scotia, New Brunswick and Prince Edward Island) and recently an export cattle-pool covering the whole of Canada has been formed by the United Grain Growers, Limited.

Ontario.

Co-operative live stock shipping in Ontario started in 1914 but it is only since 1917 that the movement has reached any proportions.

The following suggestions, rules and regulations were advanced by the Co-operation and Markets Branch of the Ontario Department of Agriculture and govern the co-operative shipping and marketing of live stock in the province :

(1) Where there is already a business organization of farmers in the district suitable for the purpose, the shipping of live stock should be co-ordinated with such, and a special live stock department of the company established. Care should be taken not to over-organize the district, especially with a multiplicity of business organizations.

(2) Some most successful shipping is done by farmers' clubs. Here also a special committee should be appointed to handle the business.

(3) Where there are no local organizations through which to work, a special live stock shipping association might be formed.

It was recommended, that, in any event, a simple set of rules such as the following should be adopted :

Name. — This organisation shall be called the Live Stock Shipping Association.

Objects. — The object shall be to market live stock in carload lots, and to buy and sell feeds in wholesale quantities.

Members. — Any farmer in district may become a member by paying the annual membership fee and agreeing to abide by all the rules governing the association. A member may be expelled for cause by the members in general meeting.

Fee. — Each member shall pay an annual membership fee of \$5, which fee may be retained by the association if the member fails to abide by any rule, or rules, of the association. The decision as to retaining such fee, or fees, shall be with the members in general meeting.

Committee. — A committee of 3 members shall be appointed to have charge of all live stock shipping by the association.

Manager. — A manager shall be appointed by the committee, and he shall be paid a commission of $1\frac{1}{2}\%$ of the selling price of the stock sold, or at the rate of . . cents per head of hogs and . . cents per head of cattle.

Duties of Manager. — The manager shall make arrangements for all shipments, weigh and (where possible) grade each member's shipment, load cars, and sell cars under the direction of the committee, and make returns to members.

Shipping Day. — The committee shall designate the shipping days, or, if the supply warrants it, regular shipping days. Each member having stock to ship shall notify the manager, at least 3 days previous to the day of shipment, as to the number and kind of stock he will have for such shipment.

Delivery of Stock. — Each member shall deliver on shipping day the number of live stock agreed upon with the manager beforehand. Each member shall mark his cattle with a mark designated by the manager.

Grading. — The manager shall grade all hogs delivered into one of the following grades: Heavies, Selects, Lights, Sows or Stags. Each member's cattle shall be marked and sold separately.

Losses. — Any losses not covered by the regular charges shall be met out of the general funds of the association.

Payment to Members for Stock. — The manager shall sell all stock for cash and shall first deduct the total expenses from the total amount received for each shipment. The remainder of the money received shall be paid to the members in proportion to the value of each member's shipment. The manager shall make all payments by cheque as soon as practicable.

Auditors. — The association shall appoint two auditors who shall audit the accounts of the manager as soon as practicable after each shipment.

Changing Rules. — These rules may be amended by a two-thirds vote in the affirmative of the members present at any regular meeting.

To these rules, others might be added regarding meetings, quorum, voting, etc., if thought desirable.

With regard to methods of management, the following suggestions were made:

Capital. — A live stock shipping association can be successfully handled without capital, if members are willing to wait for returns until after the sale is made. This is usually only a few days after shipment, and is no hardship. If cattle or hogs are sold on the stockyards, the cheque in payment is made at the time of sale, and returns can be made to members almost immediately. When capital is used to pay members at the time of delivery of their hogs or cattle, care should be taken to make such payment low enough to provide for all expenses, shrinkage, losses, price changes, etc. Preferably, however, no capital should be used and members paid actual money received for their stock, less expenses.

Grading. — It is essential that all shipments of hogs should be graded, and each grade sold separately. This does not mean that only select hogs be shipped, but if inferior hogs be shipped they should be sold as such. A select hog is one weighing 185 to 220 lbs., of the bacon type and properly finished. An endeavour should be made to prevent members shipping unfinished hogs.

Manager. — It would in many instances be desirable to interest one of the local buyers of the district in this co-operative shipping to obtain his services as manager. The manager should at least occasionally accompany shipments to market.

Payment to Manager. — The manager may be paid a commission, say of $1\frac{1}{2}\%$ of the sale price of the live stock or so much per head on the following suggested scale. Cattle over 1,000 lbs., \$1; Cattle 500—1,000 lbs., 75 cents; Cattle under 500 lbs., 50 cents; Calves, 15 cents; Hogs, 10 cents; Sheep, 10 cents. The preferable method is perhaps the percentage basis, as requiring less book-keeping.

Method of Sale. — The stock may be sold, (a) F. O. B. shipping point, (b) weighed off cars, or (c) watered and fed. Stock may be sold direct to packing house or through a commission firm on the stockyards. The more desirable method for continuous shipments is to sell through a commission firm, as the stock is sold on a competitive market and usually brings its actual market value on the day of sale.

Fixed charges. — Fixed charges in the Stock Yards market are: Unloading, \$1 per car for cattle and hogs; Yardage, hogs and sheep 6 cents; cattle and calves 10 cents; Feed, varies; Insurance, 10 cents per car; Commission, \$8 per single deck, \$13 per double deck, for hogs and sheep, \$13 per car of cattle.

The following example of a member's shipping statement was also given by the Department of Agriculture:

..... LIVE STOCK SHIPPING ASSOCIATION.

Shipping Statement.

Name of Shipper — John Smith

Guelph, Ont., Aug. 16th 1918.

Address — Guelph, R. R. No. 4.

Shipment No. 4.

No.	Class of Stock	Mark	Wt. at Shipping Point	Selling Wt.	Price	Returns
3	Cattle	1	3060	3030	15 c.	\$ 454.50
					Total...	\$ 454.50

Charges deducted	Freight	\$ 1.92
	Selling chgs	1.80
	Feed . . . . .	.72
	Yardage . . . . .	.75
	Unloading . . . . .	.12
	Insurance . . . . .	.01
	Mgr. comm.	2.40
	Res. Fund	1.13
Total		\$ 8.85

Balance due . . . \$ 445.65

Enclosed find cheque for this amount.

JOHN WILSON, Manager.

The charge noted in the above statement called reserve fund is for the purpose of covering any accidents in shipments whilst the stock is still in possession of the association. To cover such loss in transit the usual method is to assess each member so much per animal shipped, some clubs charging 15 cents per head for cattle and 5 cents per head for hogs and sheep.

The most important co-operative livestock marketing association in Ontario is the United Farmers' Co-operative Company of Ontario. In 1914 the company started to take consignments of live stock from the local farmers' associations and to sell them through one of the commission firms which had a seat on the Live Stock Exchange. In 1919 the company purchased its own seat on the Exchange, organized its own commission department and started to take shipments direct. The first shipments were received in February 1919. The progress made by this department is shown by the fact that in the first two weeks of February 1919 it handled 33 cars of live stock, valued at \$79,919, and in the corresponding two weeks of February 1920, 197 cars of live stock, valued at \$463,000, were handled. In all in 1920 the live stock department did a business of over 8 1/2 million dollars and handled 247,800 head of live stock including 71,900 cattle, 19,400 calves, 85,300 hogs and 71,094 sheep. In spite of the fact that there had been a decrease of 68,300 in the number of head of live stock passed through the yards in that year the United Farmers showed an increase of 26,300 head over the amount handled in 1919, their share of the business done in the yards at Toronto and Montreal being about one quarter of the total. The profit of the company at the Montreal Stock Yards in 1920 amounted to \$742; these yards, however, were only used by the company for a few months. At the Union Stock Yards, the profits made in 1920 and 1921 were \$21,707 and \$17,419 respectively.

The United Farmers' Co-operative Company of Ontario has other activities to which we shall have occasion to refer. The shareholders number 19,000. The management of the company is in the hands of a board of directors, about 35 in number, chosen at the annual meetings by representatives of the shareholders who are grouped by ridings. The company has grown rapidly of late years; in 1914 the turnover was \$33,000; in 1915, \$226,000; in 1916, \$410,385; in 1917, \$918,197; in 1918, \$1,765,378; in 1919, \$8,500,000; and in 1920, \$19,500,000. In 1921 the company suffered a gross loss of \$388,597; of this loss \$159,499 was in trading. However, all departments did not suffer a loss; the head office made a trading profit of \$4,433, the West Toronto Live Stock Branch a profit of \$17,419 and the Toronto Creamery \$31,222. In 1920 the profits amounted to \$57,176 out of which a dividend of 7 per cent. was declared, but no patronage dividend was paid. In 1921 no dividend at all was paid. The company's authorized capital is \$1,250,000 and the subscribed capital is \$1,195,150 of which \$871,406 is paid up.

The co-operative live stock shippers of Grey County have departed somewhat from the usual method of receiving their returns from the company. The returns are divided between the individual owners of the

stock by the company's agency at the Toronto stock yards and the amount due is paid into the bank in Grey County. The bank then issues cheques to the members, deducting for the association the percentage decided upon for the reserve fund.

Saskatchewan.

The first step towards the organization of co-operative marketing of live stock in Saskatchewan was taken by the Provincial Department of Agriculture which published a bulletin in 1913 explaining the method of co-operative marketing and the benefits to be obtained therefrom. As a result nine incorporated co-operative stock marketing associations were organized in 1914 and this number had increased to 54 by 1920, exclusive of the unincorporated locals of the Saskatchewan Grain Growers' Association. The rules and regulations of the Saskatchewan stock marketing associations are similar to those adopted in the Province of Ontario.

In Table III are shown the number of registered associations marketing stock and the quantity sold from 1914 to 1920.

TABLE III. — *Number of Registered Live Stock Marketing Associations in Saskatchewan and Quantity of Stock Sold, 1914 to 1920.*

Year	Number of associations	Live stock	
		Number of cars	Value \$
1914	9	30	42,034
1915	10	140	150,513
1916	23	241	323,171
1917	35	548	1,050,285
1918	50	750	1,432,000
1919	51	784	1,576,083
1920	54	912	1,429,300

In 1921 the number of associations increased to 60; in addition there are several unincorporated groups which employ the same methods.

In Table IV (page 495) are summarized special reports from 11 typical associations in 1919.

From this table it will be seen that an average saving of 73 cents per pound was realized by marketing co-operatively.

A few years ago the attention of the Co-operative Organization Branch of the Saskatchewan Department of Agriculture was drawn to the fact that several associations were making a practice of sending a new man down to market with each consignment, shareholders frequently taking turns in accompanying shipments. The Branch pointed out that this

TABLE IV. — *Summary of Special Reports of Eleven Typical Co-operative Live Stock Marketing Associations in the Province of Saskatchewan, 1918.*

Name	Number of cows	Number of shippers	Weight	Saving per lb.	Amount saved
			lbs.	cents	\$
Dubec Grain Growers' Association, Limited	6	—	110,200	1/2	551
Grenfell Grain Growers' Association, Limited	1	—	18,380	1	184
Guernsey Co operative Association, Limited	8	17	148,210	1	1,482
Levan Grain Growers' Association, Limited.	4	38	73,590	3/4	552
Recanville Grain Growers' Association, Limited.	10	90	175,740	1 1/2	2,636
Rozilee Co operative Association, Limited .	29	580	559,221	5/8	3,495
Speers Grain Growers' Association, Limited	5	42	105,845	1 1/2	1,588
Wauchope Grain Growers' Association, Li- mited.	2	7	35,440	1/4	89
Welwyn Grain Growers' Association, Limited	8	—	136,670	1	1,367
Wilton Co operative Trading Association, Limited.	68	200	1,371,240	1/2	6,856
Young Grain Growers' Association, Limited.	18	—	197,220	1 1/2	2,958
	159	—	2,931,765	—	21,758

practice, if continued, would seriously interfere with the success of the associations, for the reason that in many cases the parties accompanying the stock would look upon the marketing of the whole consignment as a secondary consideration, their personal business at the market being of greater importance, and that consequently the stock would be neglected in transit and sold to poor advantage. For the greatest success it is necessary that the same party should accompany every shipment so as to become familiar with the markets and experienced in the business.

To encourage the organization of live stock marketing the Co-operative Organization Branch supplies each new association free of charge with a set of receipt and account forms, sufficient to record their marketing for one year, together with a bulletin explaining how the accounts should be kept.

At the 1918-19 session of the Provincial Legislature, following the report of a Royal Commission on the marketing of live stock and live stock products in Saskatchewan, steps were taken to establish two incorporated central live stock markets at Moose Jaw and Prince Albert. The capital stock of each of these companies was originally placed at \$100,000, divided into \$100 shares, with the proviso that half the stock must be held by agriculturists. The legislation further provided that as soon as \$60,000 worth of stock had been subscribed and half of that amount paid up, the shareholders might meet and elect their directors and commence business.

Dividends were not to exceed 8 per cent. on the paid up capital, and profits in excess of this amount were to be put in a stock yards reserve account. One third of the cost of the buildings erected at each of the yards was to be paid by the government on evidence that the company possessed enough paid up capital to furnish the other two thirds.

The real and personal property was made exempt from taxation for municipal or provincial purposes for a period of five years, dating from 1 January 1920.

The report of the Southern Saskatchewan Co-operative Stock Yards, Moose Jaw, for the year ending 30 April 1920, the first year of operation, stated that a very favourable market for cattle, hogs and sheep had already been established, and in addition to this an active horse market had been created and a number of successful auction sales of horses had been held at the yards. To accommodate this department, additional stabling for 65 head of horses, and a comfortable, commodious, heated and covered sale ring were to be built in the summer of 1920.

By the original charter the amount of stock was fixed at \$100,000, but very soon the directors realizing the possibilities of extension, asked the government to increase the stock to \$300,000, and this increase was authorized.

During the five months ending 30 April 1920 — the first five months of their operations — these yards handled 486 cars containing 5,667 cattle, 122 calves, 12,334 hogs, 2,680 sheep and 2,087 horses. Of this quantity of stock the greater amount was marketed within the province, the local abattoirs providing a ready market.

In addition to accommodation for horses, the selling of which we mention below, the company proposes to build a dipping vat, a hay shed, and additional chutes and trackage for loading and unloading.

The Northern Saskatchewan Co-operative Stock Yards, Ltd., at Prince Albert, erected its exchange building and stock yards in the summer of 1919, the area covered being 51½ acres of land. The yards are admirably located with respect to railway service. The construction of the yards is modern in every detail, and at present provide accommodation in covered and open pens for 100 cars of stock. In addition to these pens there is a sales barn that will stable 80 head of live stock, and a sales pavilion 100 feet long and 50 feet broad.

The supply of live stock is greater than the local demand, and considerable livestock is shipped to Vancouver and eastern and southern points.

The total value of live stock passing through the Northern and the Southern Saskatchewan Co-operative Stock Yards during the year ending 30 April 1921 was \$7,380,000.

With a view to finding a profitable home market for surplus farm horses the Saskatchewan Department of Agriculture arranged, in 1919, a series of co-operative horse sales. The sales were arranged in circuits, the arrangements for the sales being in the hands of the local agricultural society at the point where the sale was to be held. Either the sales took

the form of auctions, all animals for sale being listed with the secretary of the society and sold for cash or on such terms as the society's directors considered advisable, settlements being made through the secretary, or farmers having horses for sale could bring their animals to the town and deal privately with the buyers in attendance.

Quebec.

Several of the sheep breeders' and wool producers' co-operative associations in the Province of Quebec sell sheep co-operatively, their managing secretaries often being the agricultural representatives of the Department of Agriculture.

Sheep are sold by auction on the county fair ground or in other centres convenient to the members of the associations, or are shipped by carloads to the Montreal market. They are graded as follows at the various loading points and sold as such :

<u>Lambs</u>	<u>Sheep</u>
N ^o 1 — 70 to 100 lbs.	N ^o 1 — 100 to 140 lbs.
N ^o 2 — 100 lbs. and more.	N ^o 2 — 140 lbs and more.
N ^o 3 — 70 lbs. and less.	N ^o 3 — 100 lbs. and less.
Ram lambs, all weights.	Rams, all weights.

Each farmer is handed by the manager a weighing and grading certificate for the animals offered for sale. The grading is done in the presence of the farmers. This system has the advantage of encouraging the farmers to finish their sheep better before placing them on the market.

The associations charge from 8 to 10 cents for each sheep sold. When shipments are made to the Montreal market, the farmer receives 1 ½ to 2 cents less per pound as there must be deducted from the selling price the commission paid to the selling agent, the cost of freight and the shrinkage in weight during transit.

The total value of sheep sold by six of these associations in 1918 amounted to \$36,545. Through these co-operative sales the farmers have received from 1 to 2 cents more per pound than through the local buyers.

Apart from the sheep-breeders' associations there was practically no organization for the sale of live stock in the Province of Quebec before 1918. In order to improve matters in this connection the Quebec Farmers' Central Co-operative Association (or as it was then called, the Quebec Cheese-makers' Agricultural Co-operative Association) (1), began to grade and sell for its members, by carloads only, all kinds of live stock.

(1) The name of this association was changed in 1920 when it largely increased the scope of its operations. It was organized in 1910, by the Quebec Dairy Society, and as the original name implies, it first started as a co-operative cheese-making association.

The live stock shipments are made from the localities where the local associations are operating or from the co-operative slaughter houses of St. Valier or Princeville managed by the Association. All the animals are weighed and numbered at the loading points, and a copy of the weigh sheet with the bill of lading is forwarded by mail to the Association. The numbering of the animals makes the work of grading easier. The owner receives the amount due to him as well as a grading certificate, containing valuable information as to the defects noted and the way to correct such defects.

A charge of 2 ½ % is made on the sale of live animals in carloads, which includes in addition to shipment expenses, food given in Montreal and insurance.

During 1918 the Association handled about 125 carloads of animals of all kinds, i. e. 6,900 head. The total amount realized by the sales was \$152,951.

The Maritime Provinces.

In the spring of 1919, in order to introduce co-operative live stock marketing in the Maritime Provinces of Canada, viz. Nova Scotia, New Brunswick and Prince Edward Island, the Dominion Department of Agriculture demonstrated the benefits of this type of marketing by entering into an agreement with the farmers of a district near Bathurst, New Brunswick, to prepare and arrange for the co-operative sale of their sheep on the open market in the autumn of that year. The first shipment dealt with was 26 ½ carloads of lambs and sheep and very good results were obtained from the sale. In 1920 the scope of this work was enlarged to include cattle and hogs.

In many cases new organizations had to be formed, but wherever there was a society, club or any farmers' organization suitable to handle the work, advantage was taken of it. Farmers accompanied every shipment — one man to every three or four cars — and many have now sufficient knowledge to take over this work from the Government. All stock was sold according to grade, and the receipts, after all expenses were deducted, were sent to the secretaries of the local shipping associations, together with a statement giving details showing the amount due to each consignor. No money whatever was handled by the Department officials; they rendered assistance and directed the movement.

Table V (page 499) gives details of co-operative live stock marketing in the Maritime Provinces in 1920.

The United Grain Growers' Live Stock Department and Cattle Pool.

Tables VI and VII (pages 499 and 500) show the total number of cars handled by the live stock department of the United Grain Growers, Limited, at the various stock yards during the year ended 31 August 1920 and the composition of the cars in the two years 1918-19 and 1919-20.

TABLE V. — *Co-operative Live Stock Marketing
in the Maritime Provinces, 1920.*

	Number of cars	Total number of head	Revenue
Sheep:			\$
Nova Scotia	19 $\frac{3}{4}$	5,269	36,416
New Brunswick.	55 $\frac{1}{2}$	4,607	39,416
Prince Edward Island	49 $\frac{3}{4}$	1,791	14,711
Total . . .	125	11,667	90,543
Hogs:			
New Brunswick	$\frac{1}{2}$	29	1,320
Prince Edward Island.	21 $\frac{1}{2}$	1,398	44,058
Total . . .	22	1,427	45,378
Cattle:			
Nova Scotia	24 $\frac{1}{2}$	784	22,148
New Brunswick.	22 $\frac{1}{2}$	651	21,117
Prince Edward Island	6	152	5,839
Total . . .	53	1,587	49,104
Total live stock . . .	200	14,681	185,025

TABLE VI. — *Live Stock handled by the Live Stock Department
of the United Grain Growers, Limited, 1918.*

	Carloads handled on consignment	Carloads of stockers and feeders bought on order	Total carloads
Calgary	1,463	167	1,630
Edmonton	960	19	979
Winnipeg	2,510	402	2,912
Moose Jaw	93	—	93
Prince Albert	38	2	40
Total . . .	5,064	590	5,654

TABLE VII. — *Composition of the Cars of Live Stock handled by the Live Stock Department of the United Grain Growers, Limited, in 1918-19 and 1919-20.*

	1918-19	1919-20	Increase (+) or decrease (—)
Carsloads handled	5,257	5,654	+ 397
No. of cattle	77,968	103,624	+ 25,656
No. of hogs	108,066	53,219	— 50,717
No. of sheep	12,681	18,605	+ 5,924
	\$	\$	\$
Revenue	90,594	107,144	+ 18,850
Expenses	91,671	92,056	+ 385
Net profit or loss	1,077 (loss)	17,388 (profit)	+ 18,465

The offices at Moose Jaw and Prince Albert were opened during the year 1919-1920.

In the middle of 1921 a director and the treasurer of the United Grain Growers, Limited, visited Great Britain to study the live stock marketing conditions. Their report stated that, first, the chilled meat industry did not provide a safe and satisfactory means of exporting the surplus live stock from Western Canada; secondly, the removal of the British Embargo against Canadian cattle could not be looked for in time to assist Canadian producers in the disposal of their stock, and thirdly, any permanent scheme for shipping live cattle would require to be of a co-operative nature.

The report went on to say that the best solution seemed to be the formation of a cattle export company, but that this could not be formed in time for the 1921 season.

In consequence, an export cattle pool was formed by the United Grain Growers. The proposal was for shippers at country points to send co-operative shipments collected and shipped in the usual manner and sent to the United Grain Growers, Ltd., at Montreal.

The accepted cattle would be graded at Montreal and initial cash payment made as follows: Nos. 1, 2, and 3 steers, 4, 3½ and 3 cents per pound respectively, heifers 3 cents per pound, cows 2½ cents and bulls 2 cents per pound. After grading and payment, shippers would be given participation certificates. These certificates would indicate the weight and quality supplied by the individual to whom the certificate is issued and the amount of cash advance made. The participation certificate issued by the company would not be negotiable.

From the time the cattle were graded the identity of the individual contribution would be lost. Steers, heifers, cows and bulls would be separately pooled. In each pool the gross selling price, minus cash ad-

vances and expenses, would be divided equally amongst contributors to that particular pool on the basis of live weight supplied. In the case of steers the second payment would be the same for all three grades, the difference having been adjusted in the advance payment.

§ 4. CO-OPERATIVE DAIRYING.

Dairying is one of the oldest and has now become one of the most important of the industries of Canada. Co-operative dairy companies have been in operation for many years but it is only recently that the movement has become important. In the following table we give a classification of butter and cheese factories in Canada according to their character of organization.

TABLE VIII. — *Butter and Cheese Factories in Canada, Classified according to Character of Organization, 1920.*

Province	Co-operative	Individuals and partnerships	Incorporated companies	Total factories
Quebec	223	1,551	34	1,808
Ontario	189	650	198	1,037
Prince Edward Island	23	1	12	36
Saskatchewan	22	12	13	47
Alberta	13	9	33	55
British Columbia	12	6	13	31
New Brunswick	11	16	11	38
Manitoba	9	17	31	57
Nova Scotia	7	8	9	24
Canada	509	2,270	351	3,133

Quebec.

A large amount of the co-operative dairying in Quebec is in the hands of the Quebec Farmers' Central Co-operative Association, which, as we have already noted was organized in 1910 by the Quebec Dairy Society, under the name of the Quebec Cheesemakers' Agricultural Co-operative Association. The present name was adopted in 1920 when the association greatly increased the scope of its operations.

At the start the membership was 30 and it has increased rapidly, the number in 1919 being 7,885. For the first year only cheese was handled but in the second year butter was included and from year to year various new items were added, the annual turnover of the company now being about 10 million dollars. Besides dairy products, the association handles

poultry, eggs, live stock, dressed meats, game, wool, vegetables, honey, maple sugar and maple syrup (these last two for the Pure Maple Sugar and Syrup Farmers' Co-operative (1) and other similar associations as well as for individual members) and farm requisites.

The Association has an authorized capital of \$1,000,000 divided into shares of \$10 each. No more than two thousand dollars may be subscribed by any one member. The Association has decided that no subscription of less than five shares will be accepted. The Association may purchase and sell, on commission or otherwise, import, export, manufacture agricultural products and bye-products, manufacture agricultural implements and their parts, and chemical fertilizers, and do a retail and wholesale trade in these products. In addition it may purchase any association or company having in whole or in part identical objects or powers. However, such power may only be exercised with the authorization of the Minister of Agriculture. Whereas other co-operative associations are not allowed to borrow more than four times the amount of their subscribed capital stock, plus the reserve fund, this limit has been removed in the case of the Quebec Farmers' Central Co-operative Association. This privilege will enable the Association largely to extend its export trade. At least ten per cent of the net profits made during the year must be put in the reserve fund; the dividends paid to the shareholders must not exceed ten per cent. of the paid up capital; and if still a there is a surplus, it must be allocated to the reserve fund.

All the transactions of the Association are under the supervision of the Minister of Agriculture, who may ask for all the information that he deems necessary; the Minister may take part at meetings of directors, he has the privilege of appointing the auditor of the accounts of the association and may require that the products be graded by graders appointed by him if the interests of agriculture so require.

In 1920 the company handled, for 600 local factories, co-operative and otherwise, 108,823 boxes of butter, of which 24,667 boxes were pasteurized, 63,386 were Number 1 grade and 20,770 were Number 2 grade. The amount of cheese sold was 199,658 boxes. The sales of butter showed an increase of 22,169 boxes and of cheese, an increase of 7,911 boxes over 1919. Much of the cheese sold by the company was exported to England. The average quantity of cheese handled by the company during about 26 weeks of the shipping season was 7,500 boxes per week.

In the table IX (page 503) is shown the effect of the company's grading system upon the quality of the butter and cheese handled.

Butter is graded according to the following scale: Number 1, from 100 down to 95 points; Number 2, 94 to 92 points; Number 3, below 92 points. Cheese is graded on similar lines: Special, 100 down to 94 points, minimum for flavour, 41 points; Number 1, 93 to 92 points, minimum for flavour, 39 points; Number 2, 91 to 87 points, minimum for flavour, 37 points. Both these gradings are according to Government standards.

(1) This association was organized in 1913 and now has over four hundred members.

TABLE IX. — *Effect of Grading upon Quality of Butter and Cheese handled by the Quebec Farmers' Central Co-operative Association in 1911 and 1920*

Grade	Purified (butter) Special (cheese)	No 1 %	No 2 %	No 3 %
Butter	1911	—	49.2	41.0
	1920	60.91	19.09	—
Cheese	1911	—	26.7	45.8
	1920	79.17	20.53	—

Ontario.

The co-operative sale of dairy products in Ontario is chiefly undertaken by the United Dairymen Co-operative, Limited, which acts as the central selling agency for its patrons, either individuals or creameries or cheese factories whether co-operative or otherwise.

However, before dealing with the main association, we give the following typical example of the formation of a local co-operative creamery in Ontario. In 1917 the Ontario Department of Agriculture established a creamery at New Liskeard. In preparation for this a canvass was made of the farmers of the district when over eighty of them signed an agreement to send their cream to the creamery to be manufactured into butter. The Department secured the services of a competent butter maker who manufactured the butter for the patrons at a charge of 3½ cents per pound until the factory became self-supporting. When that time arrived the farmers took it over at first cost, in accordance with an agreement originally made. At the start there were 325 cows in the district to supply the cream, and this number being small the Department made plans to purchase several carloads of cows and sell them at auction at New Liskeard.

The United Dairymen Co-operative, Limited, formed in 1920 is responsible for most of the co-operative sale of cheese and a large part of the co-operative sale of butter in Ontario. The shareholders of the company, who at 30 November 1921 numbered about 450, are organized into county locals and all matters relating to the dairy interests in those counties are referred to the interested locals for consideration. Officers of the central company attend the annual meetings of the local companies and submit to them the reports which are later to be submitted at the annual meeting of the central organization. Each county local appoints one representative to attend the annual meeting of the association. Any shareholder of the association who desires is free to attend this meeting and to take part in the discussions, but only the appointed representatives of the county locals are permitted to vote.

At first the company met with strenuous opposition from the local dealers and other interested persons, but it is becoming more and more the central selling agency for local cheese factories and other dairy enterprises, whether co-operative or otherwise.

Only 13 factories sold their cheese through the company at its first sale held in Montreal in June 1920 and the amount of cheese sold was 691 boxes. During the season of that year the number steadily grew until as many as 52 factories were selling through the central during the same week. Between 1 June and 30 November 1920 the sales of the company exceeded one million dollars. Of this sum \$979,000 represented sales of cheese and \$28,200 sales of butter. During the next season between 4,000 and 5,000 boxes of cheese and butter were sold. In one week the company dealt with the produce of 103 factories, and up to the end of August 1921 the total sales amounted to \$1,039,000. During the first eighteen months of operation the total sales of the association amounted to \$2,275,000, the second season's sales showing an increase of 133 % over those of 1920. The cost of selling cheese averaged $\frac{1}{17}$ cent per pound. A dividend of 8 % was declared, and \$600 of the surplus profit was used to reduce the organization expenses account.

The United Farmers' Co-operative Company of Ontario, whose activities are dealt with in various sections of this article, own a creamery at Toronto which handled over one million pounds of butter in 1920 and made a profit of \$14,910. In 1921 the profit made was \$31,222.

Prince Edward Island.

Co-operative dairying in Prince Edward Island was started in 1891 when the then Dominion Commissioner of Dairying visited the island. On behalf of the Dominion Government he offered to supply the plant and operate a factory at a fixed charge and to market the butter and cheese. The farmers themselves were to erect the necessary buildings. The success of this factory soon led to the formation of other co-operatively run factories. The stock shares were generally \$10 and were nearly all held by patrons, the majority of patrons holding only one share. In 1920 there were twenty-three co-operative creameries and cheese factories in operation.

Saskatchewan

The first co-operative dairy enterprises launched in Saskatchewan were three co-operative creameries established in 1896. For several years little progress was made but as the country developed more interest was taken in dairying and when, in 1905, the Province was granted autonomy the progress of co-operation became marked. Following the establishment of the Dairy Branch of the Saskatchewan Department of Agriculture in 1907 an arrangement was made whereby all the co-operative creameries

voluntarily placed themselves under the supervision and direction of the Provincial Dairy Commissioner. By this arrangement the Dairy Branch engaged the managers, purchased all supplies, kept the accounts, marketed the produce and paid the patrons.

The following table gives data concerning the progress of co-operative dairying in Saskatchewan from 1907 to 1917 inclusive.

TABLE X. — *Progress made from 1907 to 1917 by Co-operative Creameries in Saskatchewan.*

Year	Number of creameries	Number of patrons	Pounds of butter	Gross value \$
1907	4	213	66,246	16,069
1908	5	553	220,282	53,177
1909	6	876	324,404	80,286
1910	7	1,166	462,221	112,275
1911	9	1,596	703,583	168,040
1912	10	1,755	649,958	179,184
1913	11	2,681	850,525	229,406
1914	13	3,625	1,398,730	249,937
1915	15	5,979	2,012,401	558,010
1916	17	7,205	2,538,061	771,092
1917	19	8,126	2,482,400	996,152

In 1917 a central co-operative dairy company was organized under the name of the Saskatchewan Co-operative Creameries, Limited, with its head office at Regina. The company has an authorized capital of \$1,000,000, divided into 20 shares, of which \$750,000 has been subscribed and \$350,000 paid up. In addition the company possesses fixed assets of about one million dollars. The number of shareholders is about 4,500.

In addition to its own big combined factory and headquarters the company operates 24 local creameries, 5 public cold storage plants and three poultry killing stations in various parts of the Province. In all the company has about 19,000 patrons. For the year ending 30 April 1918 the value of the products marketed by the company amounted to \$1,700,000, in 1919 they totalled \$2,500,000, in 1920 the turnover was \$3,000,000, and in 1921, in spite of a very bad season for the farmers, the business done was \$3,500,000. In 1920 the company manufactured nearly three million pounds of butter, supplied Regina with most of its milk and cream, sold 161,000 gallons of ice cream and graded and marketed over 50 carloads of eggs and several carloads of poultry.

In 1919, in addition to paying its shareholders a dividend of 8 per cent., the company paid a bonus of 2 cents a pound on all butter fat; this amounted to \$50,000. Bonuses were also paid on eggs and poultry. The

company was the first of the kind to pay patronage dividends in Canada in addition to its dividends on stock. In 1920, owing to the drop in the price of butter, no patronage dividend was paid.

In 1919 the directors voted a bonus of 8 per cent. on the salary paid to each member of the staff, thus adopting the principle of paying the same percentage on salaries as upon paid up capital. Bonuses under \$100 are paid in cash, from \$100 to \$200 half cash and half stock in the company, over \$200 one-third cash and two-thirds stock in the company

Alberta.

There are about 53 co-operative creameries in Alberta, receiving cream according to grade and selling butter on the grades of the Dairy Commissioner of the Provincial Government. About a million pounds of creamery butter were produced by these creameries in 1919. If desired, the Butter Marketing Service of the Provincial Department of Agriculture will act as a central selling agency for the creameries, \$250,000 being allotted to this Department with which to make advances on butter sold. This is generally done to the amount of 80 per cent.

In 1920 the milk producers shipping to the Calgary market organized themselves into the Calgary District Milk Producers' Association. A president and vice-president were elected and a board of twelve directors appointed. The initial membership numbered eighty.

In 1921, starting with the Calgary District Milk Producers' Association, a movement was put under way for the formation of pools on similar lines to the grain pool, for the marketing of the dairy produce of Alberta. The movement got its first real start when the Calgary distributors refused to assume more than 25% of the loss in a drop in milk prices. An agreement has been drawn up by which the producers bind themselves to sell all of the milk and dairy products they produce through the Association (excepting only such as may be required for home use), to deliver these products as may be ordered by the Association, and not to sell or deliver any of their dairy products at prices in excess of the price then paid by the Association. The producers also agree to pay a penalty should they break their contract with the Association.

Similar associations to the Calgary District Milk Producers' Association exist at Olds and Didsbury. These associations have now joined the Calgary Association milk pool under the terms of the aforementioned agreement.

British Columbia.

Local co-operative dairy associations have been in existence in British Columbia for several years, chiefly amongst the farmers centred round Vancouver, New Westminster and Victoria. These local associations are operating under the Agricultural Associations Act. At first most

of them were aided by small loans from the Department of Agriculture. Some of the local creameries, such as the Comox Creamery Association Ltd., the Northern Okanagan Creamery Association, Ltd., and the Salmon Arm Creamery Association, Ltd., are concerned only with the manufacture of butter, which is sold either direct to the retail trade or through some reliable commission house. On the other hand the Cowichan Creamery Association, Ltd., has for several years carried on a co-operative business in butter, eggs, poultry, flour and mill feeds, fruit and vegetables. The association also possesses an elevating plant which includes equipment for cleaning, crushing, grinding and mixing grain.

The Fraser Valley Milk Producers' Association was incorporated in 1913. It has an authorized capital of \$1,000,000, of which \$500,000 have been paid up. The shares are \$10 each, but not less than \$100 in stock is sold to a shareholder nor may he hold more than \$3,000 of stock. There are 1,500 shareholders. Shareholders subscribe for stock in proportion to the number of cans which they deliver per day; they are expected to take \$200 of stock per can. At first the amount of interest which ~~could~~ be paid was limited to 6 %, but 8 % is now the maximum. During the first three years of the War the organization of the company was held in abeyance, but since then the Association has made great strides. The Association was the first in Canada to work under a pooling agreement with the milk producers by which the producers are bound to sell their produce only through the Association. The first agreements ran for a period of one year and proved very successful; the next ran for three years, subject to 12 month's notice of withdrawal by either party. The present agreement, which is based on similar contracts in force in New Zealand, California, Denmark and other countries, runs for an indefinite period, subject to a year's notice of termination of contract as in the previous agreements. Between 90 and 95 per cent. of the producers in the Fraser Valley have signed this agreement. Under the terms of the contract the producers agree to forward to the Association all milk and cream produced by them, except what is required for their personal or family use, and to endeavour to follow the instructions of the Association in regard to the proportionate quantities of milk to be produced during the several months of the year in order that the natural surplus in the spring may be reduced as much as possible. The producers agree to deliver the milk and cream to such plant or place as the Association may designate and to be responsible for its condition until its delivery.

The Association agrees to receive all the milk and cream delivered by the producers, to sell it and to pool the proceeds and to divide them amongst the producers on the basis of the butter fat content f. o. b. Vancouver, reducing the price where the costs of delivery are less than the costs of delivery at Vancouver by an equitable difference. It is agreed that the price paid should be based on the market prices obtained for sour cream, sweet cream and whole milk, less such amounts as may be deducted for the purposes of the Association, these amounts not to exceed 10 per cent. of the sums realized for the sale of the milk and cream.

The producers also agree that if they fail to deliver their milk and cream through the Association they will pay to the Association 20 cents for each pound of butter fat not delivered.

The directors are authorized to retain from these funds such amounts as they may deem advisable for the purpose of purchasing land, buildings, machinery or equipment, or for any other investment which they may deem to be of benefit to the Association, it being provided that such expenditure shall not exceed $2\frac{1}{2}\%$ of the total amount realized from all sales of milk and cream during the year, unless authorized to do so by a special general meeting of the Association. The Association make semi-monthly settlements with the producers.

In time the Association found it necessary to make provision for the handling of their surplus milk, and in 1917 they entered into an agreement with some of the dealers whereby the dealers were to buy all their milk, wholesale, from the Association. In 1919 the Association decided to enter the retail trade and it purchased the controlling interest in a large dairy company in Vancouver which handles 70 % of the milk trade in that city, having about 20,000 customers. This company is capitalized at \$300,000 of which the farmers own \$240,000. The manager of the company holds the balance of the share capital; he is also a member of the board of five directors, the other four being members of the Association. In addition to the main plant the company owns a creamery and an ice-cream plant in Vancouver which are used to handle the surplus milk. This creamery makes about 1,000,000 pounds of butter annually which is sold locally, the skimmed milk being also sold as such or made into casein. The Association also owns a receiving station at Clayburn, 40 miles from Vancouver and another receiving station and a cheese factory at Chilliwack which turns out 300,000 pounds of cheese a year. A milk condensery was built in 1920 by the Association at Abbotsford, about 45 miles from Vancouver and an arrangement made with the Pacific Milk Company, Ltd., to instal the machinery and to operate the plant. The contract, which runs for 5 years, provides that the Pacific Milk Company will buy all its milk from the Association, pay all carrying charges, make an allowance for depreciation and pay 7 % on the money invested by the farmers in the plant. The company handles about 40,000 pounds of milk a day, and is operated for two-thirds of the year. The company also owns a plant of its own for which it buys its milk from the Association on the usual basis.

A milk powder company has also entered into a five year agreement with the Association to buy all its milk from the Association.

The turnover of the Association through the sale of milk wholesale is about \$2,700,000 and of butter and milk retail in the cities about \$2,500,000.

In 1919 the Vancouver Island Milk Producers' Association, who supply milk and cream for the city of Victoria formed a pool similar to that of the Fraser Valley Milk Producers' Association. In addition to the clause binding the patrons to supply their products only to the Association, the Association has entered into an agreement with the dealers

by which it will not sell retail nor will the dealers buy outside the Association during the life of the agreement. This clause, however does not cover surplus milk whether made into butter, cheese or ice-cream. The Association owns a creamery in the city of Victoria in which it manufactures its own surplus.

The capital of the Association is divided into \$10 shares and each member must hold at least five. Today the amount of capital is over \$350,000. Ten per cent of the paid up capital goes into a "redemption fund," out of which at any time any member who is retiring from dairying may receive the full value for his shares, which he returns to the Association, plus six per cent. interest on his money. This fund was started mainly for tenant farmers, of whom there are a fairly large number amongst the dairy-men and who might at any time be obliged to sell out. It has been an important factor in obtaining the support of these men. Up to the present time, however, there has been enough demand for stock from prospective new shareholders to redeem all the shares handed in without drawing upon the redemption fund.

From the first the Association had to handle 300 gallons a day of milk as surplus; this rose to 850 gallons a day at the height of the season in 1919 and averaged for the year 350 gallons a day. The number of producers who first joined the pool was 75; the number now is about 240. The association handles an average of 4,500 gallons per day and has a turnover of from \$30,000 to \$35,000 a month. Members are paid the average received from that portion of their milk sold in the city and of the price received for the surplus which is sold as butter, less operating expenses, which average about 4 ½ cents per pound.

It should be pointed out here that while the farmers belonging both to the Fraser Valley and the Vancouver Island Milk Producers' Associations have made a success so far of their milk pools their conditions are not the same as prevail in most other sections of Canada. The cities of Vancouver and New Westminster are practically dependent upon the comparatively small number of farmers in the Fraser Valley for their milk and cream. This has made it easier for those farmers to organize than would otherwise have been the case. A somewhat similar condition exists around the city of Victoria. Milk could not very well be brought from the mainland, or from the State of Washington in the south. This leaves the city of Victoria dependent upon the milk producers adjoining the city. In the remainder of the milk producing sections of Canada the production of milk is greater and it is possible for opposition dealers to buy and ship from long distances.

New Brunswick.

Marked progress has been made in the dairy industry of New Brunswick during the past few years, the tendency in co-operative dairying being to form central co-operative creameries covering large districts.

The Farmers' Co-operative Creamery Company at Monkton is a case in point. This co-operative dairy association was started in 1918, in that year the number of patrons supplying cream was 300; they increased to 602 in 1919 and to 990 in 1920. In 1918 the amount paid to patrons was \$37,735 and \$144,761 in 1919. In 1920 it became necessary to enlarge the whole plant, which includes an ice-cream factory, in order to accommodate the volume of business. In addition a chemical storage plant is being installed. Another company, the Sussex Cheese and Butter Company have found it necessary to instal two 400-gallon pasteurizers. At the Madawaska Creamery at St. Hilaire, under the control of the provincial Department of Agriculture, the output is gratifying. As soon as conditions permit, another central creamery will be organized in Gloucester county. With the establishment of these large central creameries the dairy industry of the province will soon be placed on a sound basis.

Manitoba.

There are comparatively few dairy farmers in Manitoba and although there were several co-operative creameries in the province previous to 1920, they were very loosely knit. Consolidation started in that year when the farmers who supply Winnipeg with its milk and cream formed the Winnipeg Milk Producers' Association. This association was similar to other associations of the kind that exist around Montreal, Toronto, Ottawa and other consuming centres. The object of the Association was to organize the producers and thereby enable them to negotiate more effectively with the dealers in settling prices to be paid for milk and cream. The Winnipeg Milk Producers' Association met with all the usual difficulties of starting, and in addition climatic conditions are not as favourable in Manitoba for the production of milk as they are in Ontario or British Columbia. Cattle have to be stabled from about 15 October to 24 May, and there is lack of cheap natural pastures. This makes the production of cream an expensive matter. Moreover owing to the small number of dairy farms the supply of milk and cream required by the city of Winnipeg has to be obtained from a wider area than would otherwise be the case. This makes it correspondingly more difficult and expensive to organize the producers. The difficulty is heightened by the fact that a considerable number of the farmers produce milk for only a short period each year and as dairying is not one of their main sources of income it is harder to interest them in a milk producers' association. There is also the usual difficulty in obtaining capital.

The first move on the part of the new association took the form of an appeal to the city for a joint council composed of producers, consumers and distributors which would fix fair prices. The appeal was, however, unavailing. Shortly after this the Board of Commerce commenced holding sittings in Winnipeg and ordered the reduction in the retail price of milk. This time the Association was successful in preventing the dealers from

passing on the reduction to the producers. However, after the expiry of the order of the Board, conditions were as bad as before.

In the Autumn of 1920 the members of the Winnipeg Milk Producers' Association came to the conclusion that they would only become fully effective when incorporated as a commercial company. It was decided, therefore, to form a co-operative company, capitalized at \$500,000, and to purchase the second largest dairy plant in Winnipeg. It was also decided to develop the Association along the lines of the Saskatchewan Co-operative Creameries, Limited. In the city of Winnipeg 40 per cent. of the milk trade is handled by a large non-co-operative company, 40 per cent. by small dealers and 20 per cent. by the City Dairy Company. On this last the farmers secured an option for \$250,000. The association then applied to the Government for a loan of 75 per cent. of the costs of the plant required, but the Government would only make a loan of 50 per cent. Therefore the option on the City Dairy Company's plant was allowed to expire.

Owing to the great drop in the price of farm products which occurred in the autumn of 1920, the campaign to sell stock was not very successful, only about \$70,000 of stock being sold. Therefore the association bought a creamery which is capable of manufacturing 400,000 pounds of butter per year and by the addition of some extra equipment could manufacture 1,000,000 lbs. a year. It is the intention of the directors to build up the present business of the creamery and to link up the outlying creameries by inducing them to join the company as rapidly as possible. There are about 12 small creameries, mostly owned by farmers on the co-operative basis, which it was decided should be approached with that object in view.

The charter of the company gives it power to produce, purchase and sell fresh milk and all the products of milk, to manufacture, sell and otherwise deal in condensed, pre-erived and evaporated milk, and all other forms of manufactured milk. In addition to the foregoing, the company has very wide powers, which enable it to enter other lines of business, should such action be found advisable.

During the latter part of 1921, the United Farmers of Manitoba formed the Manitoba Co-operative Dairies, Limited. The Company was incorporated in that year and conforms to recognized co-operative practice.

Nova Scotia.

There were seven co-operative creameries and cheese factories in operation in Nova Scotia during 1920. They are all organized under the Nova Scotia Companies' Act. The Scotsburn Creamery, Pictou County, is an outstanding example of a co-operative creamery in the province; in fact it is the largest creamery in Nova Scotia, and the following table gives data concerning the Association from 1905 to 1921.

TABLE XI. — *Progress of the Scotsburn Creamery, Nova Scotia, from 1905 to 1921*

Year	Number patrons	Amount of butter	Net value of fat per pound to patrons	Value of butter made
		lb	Cents	\$
1905	26	11,142	21.42	2,153
1906	32	13,307	21.73	2,067
1907	35	10,054	22.31	1,943
1908	38	16,122	24.22	2,401
1909	81	34,325	24.19	6,801
1910	204	107,715	24.10	22,146
1911	380	170,847	25.85	36,182
1912	423	181,014	30.14	44,788
1913	450	229,574	27.97	55,305
1914	502	277,672	28.07	65,678
1915	538	293,552	30.00	76,521
1916	592	327,715	34.25	97,077
1917	558	380,259	44.00	134,884
1918	632	388,621	52.00	164,488
1919	700	446,171	63.00	243,235
1920	947	609,860	71.00	371,820
1921	1,16*	692,818	(1)	(2) 282,735

(1) Figure not available.

(2) A general decrease shown throughout the province.

§ 5. THE CO-OPERATIVE MARKETING OF WOOL.

The co-operative marketing of wool in Canada was started in 1914, and owes its growth almost entirely to the activity and initiative of the Dominion and Provincial Departments of Agriculture. In those early days the Departments supplied expert graders free of charge and undertook to act as central marketing agencies for any associations which might care to sell their wool in this manner. From the first the project was a success, 4 to 8 cents more per pound than prices offered to non-co-operative sellers being obtained. However it was not collective marketing only that brought improvement, but the education of the farmers in improving their flocks and wool and in grading and packing their produce for market. In 1917 a great step forward was made by the Dominion Government when it arranged for the proper storage in Toronto of the western wool clip and also negotiated with the banks for advances to wool growers.

In 1918 the aim of the Government was achieved when all the local associations scattered over Canada met together and formed their own central marketing association under the name of the Canadian Co-operative Wool Growers, Limited.

Information on co-operative wool marketing before 1918 is somewhat scattered, but we have put together all the available data in Table XII (page 614) from which a fairly comprehensive picture can be obtained of the growth of this branch of co-operation from 1914 to the time when the Canadian Co-operative Wool Growers was formed.

The report of the British Columbia Wool Growers' Association for 1921 explains the factors which go to make the total cost charged to their growers for the handling of the wool. Freight charges were the highest expense and cost the grower $3\frac{1}{2}$ cents per pound; the Canadian Co-operative Wool Growers charged 2 cents per pound for selling the wool; cost of grading was $\frac{1}{2}$ cent, and interest and assessment $\frac{3}{4}$ cent per pound; and the British Columbia Wool Growers' Association charged $\frac{3}{4}$ cent per pound, making a total of $7\frac{1}{2}$ cents per pound.

The Canadian Co-operative Wool Growers is the central selling agency for co-operative wool growing associations throughout Canada. It is in no sense a speculative agency nor does it retain any of the profits made over and above money required for working expenses and reserve fund. Toronto was chosen as the headquarters of the company, not only because of its superior position with regard to transport facilities leading to all parts of Canada, but also because of its proximity to the buyers of Great Britain and the United States. The company has also various warehouses and branches in the different provinces of Canada. The board of directors of the association numbers fifteen, of which at least one must come from every province and no province may have more than three directors. Five directors constitute a quorum. Every shareholder is eligible for nomination as a director.

For the annual or any special meetings every province having one or more shareholders is entitled to send delegates, but in no case must a province send more than thirty delegates. Moreover the board of directors allot to the provinces the number of delegates each may send. The annual meetings are held at Toronto in January or February of each year and at such meetings or special meetings ten delegate shareholders form a quorum. Throughout the company every member has only one vote regardless of the number of shares he holds. No shares may be jointly owned. The board of directors have the power to borrow money on the credit of the company and to issue bonds or debentures for any sum exceeding \$100. A reserve fund is provided for by setting aside one per cent. of the annual profits.

The company has an authorized capital of \$200,000, of which, in 1920, \$95,410 were subscribed and \$46,131 paid up. The shares are \$10 each.

The net surplus for 1920 amounted to \$14,812, of which amount \$2,630 was reserved for rebates to local associations; \$3,535 was distributed in bonuses to the executive and staff for the year 1920; \$3,647 as an 8 % dividend on paid up capital as at 30 September 1920; and \$5,000 was transferred to the general reserve.

At the 1920 annual meeting of the company it was shown to the share-

TABLE XII. — *Growth of Co-operative Wool Marketing in Canada from 1914 to 1917.*

Province	Year	Number of societies (1)	Members ship	Amount of wool marketed (lbs)	Average price obtained (cents per lb)	Increase in returns to producers over non-co-operative sales (cents per lb)	Overall handling cost (cents per lb)
Nova Scotia . . .	1915	1	163	12,271	33	—	—
	1916	2	221	18,508	41.125	—	5
	1917	6	438	37,805	71.13	—	.5 to 1
New Brunswick . .	1915	1	9	1,104	35	—	—
	1916	2	39	5,130	38.25	—	—
	1917	1	—	6,558	63.5	—	.33
Prince Edward Island	1915	1	58	6,496	32.5	—	—
	1916	1	382	28,303	38.75	—	—
	1917	1	315	24,494	70.28	5 to 15	—
Quebec	1914	1	96	12,000	21.25	5 to 7	—
	1915	8	975	104,192	30.36	5 to 10	—
	1916	9	1,617	160,840	41.7	7 to 12	—
	1917	10	1,876	218,658	53.27	—	.5 to 1 (2)
Ontario	1914	1	69	15,742	20.4	—	—
	1915	1	81	20,295	26	—	—
	1916	1	—	17,991	35	—	—
	1917	4	—	316,944	60.88	—	1 (3)
Manitoba	1914	1	138	44,059	20.	—	—
	1915	2	193	75,425	26.8	5 to 7	1
	1916	2	440	151,071	31.9	—	—
	1917	—	467	170,230	59.75	—	1
Saskatchewan	1914	1	170	69,401	17.75	3 to 8	.75 to 1.5
	1915	1	318	150,328	27.77	—	.5
	1916	1	487	179,890	32.5	—	1
	1917	—	600	388,888	65.	—	4.75
Alberta	1914	6	63	134,427	19.9	—	—
	1915	5	199	208,368	26.75	—	—
	1916	7	609	1,140,117	31.33	—	—
	1917	8	—	1,850,000	59.25	—	.75 (4)
British Columbia . .	1916	1 (5)	62	21,756	31.5	—	—
	1917	1 (6)	60	10,200	61.25	—	—

(1) Number of societies of which data has been available — (2) In Quebec some societies charge for handling a flat rate of 50 cents per member plus 3 cents a fleece, other societies 5 cents a fleece only and several charge 1 cent per pound — (3) In Ontario handling charges of societies are 5 cents a fleece, 1 cent per pound or a flat rate of 25 cents per member for any number of fleeces up to 15 and 50 cents for any number over 15 — (4) This cost is given by one association only — (5) Vancouver Island Flock Masters' Association. — (6) Interior of British Columbia Wool Growers' Association.

holders that there had been invested in warehouses about \$120,000 and that the company had about \$78,000 of working capital, \$46,131 of which was paid up stock. The motion was thereupon carried that the balance of stock should be called in at the earliest possible moment. It was also decided that in future stock should be sold on a basis of a cash payment equal to the price of one share of capital stock. Applicants for more than one share may pay on the instalment plan but the cash payment must not be less than \$10. When the cash payment is not equal to 20 % of the stock subscribed for, the subscriber must pay an amount equal to 20 % of the total subscribed for in excess of \$10 paid.

Since its formation to the end of 1920 the company has received from the provinces over eleven million pounds of wool for marketing. Details concerning this wool are given in the following table.

TABLE XIII. — *Amount of Wool, by Provinces, handled by the Canadian Co-operative Wool Growers, Limited, during the Years 1918, 1919 and 1920.*

Provinces	1918	1919	1920
	lbs.	lbs.	lbs.
Nova Scotia	79,995	229,863	103,664
New Brunswick	31,750		69,983
Prince Edward Island	52,294		51,859
Quebec	215,278	185,359	210,547
Ontario	747,330	792,701	679,892
Manitoba	363,000	288,527	370,872
Saskatchewan	391,068	749,947	865,175
Alberta	985,535	1,466,973	2,157,753
British Columbia	35,323	96,769	176,475
Canada	2,901,573	3,810,139	4,686,220

In addition to the above table the company handled 285,735 pounds of pelts in 1919 and 40,025 pounds in 1920. In the latter year 51 % of the sales were made to the American trade, 45 % to the Canadian and 4 % to the English trade. In 1920 the company marketed the wool of about twelve thousand farmers, the amount received being about one-third the total crop of Canada. In 1921 the Company made a profit of \$23,690.

Comments and criticisms were made with reference to the cost of handling wool by the company during the 1921 season and were replied to by the General Manager as follows: Only the 2 cents per pound selling charge and the $\frac{1}{2}$ cent per pound grading charge on all wools graded at Weston were actually levied as the co-operative charge. The next point was as to how the 2 cents per pound for the East and the 2 $\frac{1}{2}$ cents per pound for the West were made use of and what was left over. In considering this it must be remembered that the organization is endeavouring to become strong and

permanent and that certain reserves must be built up as a matter of protection. The profit for 1921 was \$23,690; this amount works out at slightly more than $1\frac{1}{2}$ cent per pound on the approximate quantity of four million pounds handled during the season. Further some \$10,000 had been written off, including advances to growers in 1920 not recovered. This meant another $\frac{1}{4}$ cent per pound. In addition about \$10,000 were written off for depreciation on equipment, working out at another $\frac{1}{4}$ cent per pound. The above shows that 1 cent per pound of the 2 or $2\frac{1}{2}$ cents collected, as the case may be, was not spent during the year. This 1 cent per pound totalled somewhat more than \$40,000 and was used to protect the organization in a business way. Ten thousand dollars out of the profits were allocated to the general reserve, six thousand dollars were set aside to pay the annual dividend and other amounts were allotted as a matter of protection to the shareholders in connection with the organization. It was also pointed out that 1921 was a 14 month period as compared with 12 months in 1920, the extra two months being made necessary owing to a change in the end of the financial years. This period involved an additional expenditure of \$10,000 or a further reduction of $\frac{1}{4}$ cent per pound. During 1921 the personnel had been decreased by 15 % with a consequent reduction of expenses on this score of \$3,500 as compared with 1920. The whole business of 1921 was carried on at about \$15,000 less than in 1920, and it was estimated that still another saving of \$15,000 would be made in 1922 over that of 1921. The General Manager concludes by saying "therefore from all the above, it is seen that of the 2 or $2\frac{1}{2}$ cent charge there is a total of 1 cent still left unspent, and therefore of all the 3, 4, 5, 6 and 7 cents per pound as apparently spoken of as charges made by the Organization in handling wool, there is actually existing only 1 or $1\frac{1}{2}$ cents per pound as the real Canadian Co-operative Wool Growers' charge."

(To be continued)

W. F. H. L.

Insurance and Thrift

MISCELLANEOUS INFORMATION RELATING TO INSURANCE AND THRIFT.

AUSTRALIA.

A SCHEME OF DROUGHT INSURANCE - *Gleaner's Guide*, Winnipeg (Canada)
1 March 1922

In the last drought a few years ago the State of New South Wales lost 10,000,000 sheep and to prevent a recurrence a scheme of fodder conservation based on a system of drought insurance has been devised and is now undergoing final revision for submission to the State Parliament.

The chief points of the scheme are as follows: A board of six members is to be created, five representing the pastoral industry, the financial interests and the chamber of commerce, and one being the nominee of the Government. Power to control the whole of the drought insurance will be invested in this body by Act of the State Legislature. The State will be divided into 10 or 12 districts and local committees will be set up in each, working in conjunction with the central board.

The chief work of the central board will be the conservation of fodder. It will establish storage depots wherever it thinks them necessary and it will purchase and store fodder in these depots from time to time. Farmers will be guaranteed a price for their fodder and will be encouraged to grow crops of various kinds and to sell them to the board. When the fodder is needed it will be sold at a price — plus handling and interest charges and a fair rate of profit — which will ultimately make the scheme self-supporting. In five years it is hoped that it will be on a sound financial basis.

The financial side of the scheme will be based on the issue of three or four classes of bonds which will bear interest and be free of income tax. The board will sell the bonds and pastoralists generally will be expected to purchase them. The Government will contribute pound for pound to the amount of bonds purchased. Growers of fodder may accept payment in bonds and when they need fodder in time of drought these bonds will be accepted in payment. Another class of bond will be issued exclusively for the ordinary investor; it will bear a fair rate of interest but will carry no special privileges.

In brief, the idea is that in good seasons fodder will be bought cheaply, stored against a season of drought and sold when prices are high. The fodder will be sold in the ordinary market from year to year, but there will always be a sufficient reserve to tide over a drought. Until the scheme is in full working order it is estimated that the Government and sheep farmers will have to find approximately £5,000,000 for the first five years; after that will come the return on the money and the financial permanence of the scheme.

The plan has commended itself so well to the sheep farmers in the south of Queensland, which occasionally suffers from drought, that they are anxious to join in and, it is stated, arrangements will probably be made between the two states along these lines. It is also considered possible that when the fodder conservation scheme is in full working order it may be extended to the conservation of water, the other great lack that the agriculturists of Australia have to face. W. K. H. L.

AUSTRIA.

A SYSTEM OF MUTUAL AID AMONGST PEASANTS IN CASE OF FIRE.

The extraordinary depreciation of the Austrian crown has brought about very serious consequences in the most various fields of economic activity. In particular, when it is a case of fulfilling obligations resulting from a contract or agreement made prior to the War, the greatest difficulties present themselves. As far as possible, the legislature endeavours to lessen these difficulties, as for example, by the law on the modification of letting agreements and by the law on the regulation of the "Ausgedinge", of which we have on other occasions spoken in this Review.

The difficulties in relation to insurance are particularly heavy. Insurance contracts which, as usually happens, are stipulated for a term of years, are based on values which today are many times greater. Changes corresponding to actual values are usually made only when the old contract expires. But in general, partly owing to the natural conservatism of the peasantry and partly to the aversion from paying higher premiums, even the new insurance contracts are not stipulated on the basis of present values. How utterly inadequate the insurance is may be deduced from the table on page 519, in which we compare the prices of certain products and building materials with the sums assured by two insurance institutions.

The natural consequence of this under-insurance is, besides the serious prejudice resulting to the insurance institutions, which against their enormously increased expenses can only set very slightly increased receipts, an extreme discontent on the part of the insured persons when, in case of loss, they receive, to their great surprise, only very trifling compensation, which corresponds to the sum assured but not to the damage actually incurred.

Even in this, as in many other questions difficult of solution by ordinary means, recourse is had to methods which were formerly practiced and

Prices of Certain Products and of Building Materials and Sums Assured by Two Large Insurance Institutions.

Year	Average prices (in crowns) (1)										Sums assured (in millions of crowns) (2)						
	Hay (per quintal)	Straw (per quintal)	Wages per day of a bricklayer	Wages per day of a carpenter	Bricks (per thousand)	Cement (per quintal)	Shovel, lime (per cubic meter)	Cart with two horses (p r day)	Wood (per cubic meter)	Finished walls in brickwork (per cubic meter)	By the "Niederösterreichische Landesbrandversicherungs-Anstalt" of Vienna (in Lower Austria only) (3)			Buildings	Moveables	Buildings	Moveables
											Buildings	Moveables	Crops				
1914	7	3	0.65	0.70	45	4	15	22	55	25.80	654.5	168.8	41.7	2,267.7	535.7		
1915	13	7	—	—	—	—	—	—	—	—	679.8	175.7	42.4	2,268.2	538.1		
1916	13	12	—	—	—	—	—	—	—	—	731.7	198.4	48.3	2,301.4	556.3		
1917	37	30	—	—	—	—	—	—	—	—	868.7	251.7	42.2	2,547.0	622.4		
1918	125	120	2.40	2.20	440	35	180	170	250	201	1,114.2	326.0	80.7	3,272.3	815.0		
1919	450	400	4.00	4.10	600	45	300	220	450	301	1,472.4	444.9	152.6	3,878.6	1,001.6		
1920	1 250	500	13.00	13.00	4,700	520	1,750	1,000	2,000	1,725	4,916.6	1,377.7	840.8	8,670.8	2,405.8		
1921	4,500	2,000	55.00	57.00	5,500	550	3,000	2,700	4,200	3,135	25,677.1	9,939.2	3,105.5	—	—		

(1) See SCHULZ: Die Preisbildung im Bauwesen in den Jahren 1914 bis 1921, in *Zeitschrift des Ingenieur- und Architektenvereines*, No 27, 7 July 1922, page 191.

(2) See the financial statements and reports of the two institutions, which are the most widely patronized in the rural districts of Lower Austria.

(3) This institution also carries on insurance in other parts of Austria, where the sums assured in respect of buildings were 14,900,000 crowns in 1914 and 44,100,000 crowns in 1921; in respect of moveables 2,400,000 crowns in 1914 and 7,300,000 crowns in 1921.

are even now used, in their primitive form, in certain districts where, in case of fire, the neighbours or the peasants of the commune or of the district render voluntary aid.

At the meeting of the most powerful organization of the peasants of Lower Austria the *Bauernbund*, held at the end of January 1922, it was decided to organize this form of mutual aid within the association itself. It is important that the rendering of aid should not be regarded as a substitute for the action of the insurance institutions, but as completing and extending it.

The mutual aid, according to the programme laid down, must take the form of prompt and generous help, in order to avoid as far as possible variations of price and of the purchasing power of money. It consists of contributions in money and in kind. The money contributions must be collected immediately by an agent of the local organization and be paid within a week to the person who has suffered loss. The contributions in kind are for the purpose of supplying him with the most urgent necessities and of helping him during the period of reconstruction. All those members are obliged to render help who bind themselves to do so by a handshake, and these same members have the right to demand help in case they themselves suffer damage. The appointed agents and the peasants' committees examine every case, ascertain whether the person who has suffered damage is entitled to help and, if such help is necessary, distribute the burden uniformly amongst all the members in the district. Contributions in kind must be furnished by the members living in the immediate vicinity, money contributions by all those living in the district. The members who refuse to give as much help as they ought are declared to be refractory and are struck off the list of members.

In view of the wide diffusion of the *Bauernbund*, this initiative is of great importance and undoubtedly represents a noteworthy attempt to strengthen the solidarity of the peasants. It will find ready acceptance in all places where there previously existed communal insurance against fire in a primitive form, as it represents a more complete form of that institution. It will be more difficult to introduce where for a long time mutual aid in case of fire has not been practised and where, too, the feeling of solidarity and the altruistic spirit are weaker. In such communes it is to be expected that participation in the scheme, after the first fires and particularly if fires occur frequently, would diminish. Lastly, even the disinterested valuation of the money to be paid and its just and uniform distribution of the contributions amongst the members will probably give rise to serious difficulties, and some doubt may naturally be felt as to the effective working of the system. It may be asked whether it would not be better, by increasing somewhat the sums assured, to make more use of the existing fire insurance institutions, with their solid basis of operations, proved by the experience of many years, and with their trained staff, adapting them to present conditions.

FRANCE.

THE PRINCIPAL DISEASES OCCASIONING THE LOSSES OF LIVE STOCK MUTUAL INSURANCE SOCIETIES IN THE COURSE OF THE YEARS 1919, 1920 AND 1921. — *Annales de la Mutualité et de la Coopération agricole*. Paris, March-April 1922

The two following tables have been drawn up by the National Federation of Agricultural Mutual Insurance and Co-operation, from the experience gained by its National Live Stock Re-insurance Association.

The first table is a statement of losses of cattle, covered by insurance in 1919, 1920 and 1921.

These losses come out at 5.5 per thousand animals insured in 1919; at 5.3 per 1000 animals insured in 1920; at 3.4 per 1000 animals insured in 1921.

After foot and mouth disease, the cause of very heavy losses in 1920, enteritis and the affections of the genito-urinary organs (especially following on calving) are the most frequent.

The second table is the statement of the losses among horses, etc. in the course of the same years. These losses are 11.2 per 1000 animals insured in 1919; 5.7 per 1000 insured in 1920, and 7.5 per 1000 insured in 1921.

Accidents and colics are the most frequent causes of mortality among horses, etc.

TABLE I. — *Statistics of the Principal Causes of Losses among Cattle for the Years 1919, 1920, 1921*

	1919	1920	1921
Digestive organs	171 cases includ- ing	131 cases includ- ing	104 cases includ- ing
	enteritis 99 peritonitis 23	enteritis 78 peritonitis 14	enteritis 60 peritonitis 15
Respiratory organs	27 cases	32 cases	8 cases
Circulatory organs	32 cases, including pericarditis 19	31 cases	18 cases
Genito-urinary organs	68 cases including cases follow- ing on calving 38	46 cases, including cases follow- ing on calving 28	38 cases, including cases follow- ing on calving 27
Nervous system	23 cases	22 cases	16 cases
Contagious diseases	144 cases includ- ing	242 cases includ- ing	105 cases includ- ing
	foot and mouth disease 70 anthrax 27 tuberculosis 23	foot and mouth disease 175 anthrax 24 scuffles 18 tuberculosis 16	foot and mouth disease 39 tuberculosis 22 pneumonia 16 anthrax 13
Accidents	27 cases	23 cases	37 cases
Miscellaneous	18 cases	12 cases	11 cases
Total	510 cases	539 cases	337 cases
Losses per 1000 head insured	5.5	5.3	3.4

TABLE II. — *Statistics of the Principal Causes of Losses among Horses, etc., for the Years 1919, 1920 and 1921.*

	1919	1920	1921
Digestive organs	81 cases including colic . . . 11 enteritis 20 intestinal congestion 15	42 cases including colic . 28 enteritis 7	36 cases including colic . 18 intestinal congestion 10
Respiratory organs	17 cases	10 cases	12 cases
Circulatory	11 cases	5 cases	1 cases
Genito-urinary organs	8 cases	5 cases	5 cases
Nervous system	20 cases including paralysis . 15	14 cases including paralysis 7 paraplegia 7	11 cases including paralysis 7
Contagious diseases	3 cases	1 case	3 cases
Accidents	13 cases	10 cases	20 cases
Miscellaneous	7 cases	6 cases	15 cases
Total	160 cases	86 cases	106 cases
Losses per 1000 head insured	11.2	5.7	7.5

M. B.

NORWAY.

- PROFIT SHARING IN THE NORWEGIAN SOCIETY FOR MUTUAL INSURANCE AGAINST FOREST FIRES — Det norske gjensidige Skogbrandforsikringselskap
The Norwegian Society for Mutual Insurance against Forest Fires Christiania, 1913
 — Det norske gjensidige Skogbrandforsikringselskap 10 aars (10 Years Working, the Norwegian Society for Mutual Insurance against Forest Fires) Christiania, 1921.
 — Rules and Regulations of the Society.

The Norwegian Society for Mutual Insurance against Forest Fires arranges for profit-sharing among its members in two quite different ways.

In the first place, by the terms of its constitution, it collects only a minimum premium in advance, reserving the right to demand a supplementary premium at the end of the year, this not to exceed three times the amount of the initial premium. Every insured person thus has a powerful inducement to neglect no precaution against all causes of danger to his woods, and also to fight fires that may break out, such fires, however, not establishing a claim to an indemnity of more than the present value of the devastation caused.

There is moreover a second form of profit sharing for the benefit of members who have been insured for more than four years. These members represent, from the point of view of insurance, a most advantageous risk. In the first place, on their application for admission to insurance, the usual strict examination of the proposed risks was held. Then, when the agreement is in force, the Society reserves to itself the right of cancelling a policy, not only after a loss which has been declared and indemnified, but even after a fire on which no claim has been made. Agreements that have successfully passed through this double weeding out process naturally offer exceptionally sound guarantees: a preferential treatment is accorded to them, consisting in a gradual lessening of the premiums, ending in an additional share in the society's profits. The insurance premium, which is theoretically 1.25 per thousand, actually admits of a reduction of one fifth at the end of four years, and a rebate of 0.4 per thousand at the end of eight years. The consequence is that the average premium per thousand shows from year to year a very sharp fall. From 1.32 in 1912 it falls to 1.30 in 1913, to 1.29 in 1914, to 1.30 in 1915, to 1.20 in 1916, to 1.17 in 1917 and 1918, to 1.13 in 1919, to 1.03 in 1920, to 0.98 in 1921. And in reality, the premium actually paid by policy holders of four years' standing, and especially by those of eight years, is much less, from the fact that those who have just become insured, and do not benefit by the advantages enumerated above, nevertheless help to fix the average premium.

M. B.

Miscellaneous Questions relating to Agricultural Economy

ECONOMIC AND SOCIAL CONDITIONS OF THE AGRICULTURAL CLASSES

GREAT BRITAIN AND IRELAND.

THE WORK OF THE AGRICULTURAL WAGES BOARD OF ENGLAND AND WALES.

The Agricultural Wages Boards which were established in England and Wales in Scotland and in Ireland during the War for the purpose of fixing minimum wages have since been replaced by Joint Conciliation Committees which determine wages by agreement between the representatives of the employers and of the workers. We think it of interest to give an account of the work of the Agricultural Wages Board of England and Wales and a full statement of the wages fixed by it from its establishment under the Corn Production Act of 1917 to its dissolution in 1921.

§ 1. THE AGRICULTURAL WAGES BOARD.

In Part II of the Corn Production Act it was enacted that the Board of Agriculture and Fisheries, in consultation with the Ministry of Labour, should appoint an Agricultural Wages Board for the fixing of minimum wages for workmen employed in agriculture in England and Wales. To the terms "workmen" and "employed in agriculture" wide interpretations were given, so that, in fact, the Wages Board was empowered to fix minimum wages for men, boys, women and girls, working not only on farms, but on osier laud, woodland, orchards, market gardens and nursery grounds.

The Wages Board was to consist of members representing employers, members representing workers and members appointed by the Board of Agriculture who might be expected to form an impartial judgement as between employers' and workers' interests. It was left to the Board of

Agriculture to make regulations fixing the numbers of each class of member, subject to the provision that the representatives of the employers and the representatives of the workers must be equal in number and that the appointed members must not exceed in number one quarter of the whole Board.

The Board of Agriculture decided that the Wages Board should consist of 39 persons, of whom seven were to be appointed members and the remainder representative members (1). Of the 16 members representing the employers, eight were to be nominated by the Board of Agriculture, while each of the following bodies was to be asked to elect two members: The Council of the Royal Agricultural Society of England; the General Executive Committee of the National Farmers' Union; the Council of the Central and Associated Chambers of Agriculture; the Welsh Agricultural Council. Of the members representing workmen six were to be elected by the Executive Committee of the National Agricultural Labourers' and Rural Workers' Union, and two by the General Executive Committee of the Workers' Union, while the remainder were to be nominated by the Board of Agriculture.

If the result of the elections were such that in the opinion of the Board of Agriculture a fair representation of all classes of farming and of the various conditions of employment in agriculture in all parts of the country could not be secured, the Board of Agriculture reserved to itself the right to nominate a representative member in place of any person elected.

The normal term of office of an appointed member was fixed at two years and that of a representative member at three years, but it was laid down that at the end of one year five members representing employers and five members representing workers should retire by lot and at the end of two years other five representing employers and five representing workers.

To preserve the balance between employers' and workers' representatives it was provided that if at any meeting their numbers were unequal, the side which was in a majority could arrange that one or more of their members should refrain from voting. Failing such arrangement, the chairman might, if he thought desirable, adjourn the voting on any question to another meeting of the Board.

The Wages Board was formed in accordance with these regulations, and its first meeting was held on 6 December 1917 (2).

Revised Regulations governing the constitution of the Agricultural Wages Board were issued in September 1920 (3). The principal change

(1) PROVISIONAL REGULATIONS WITH RESPECT TO THE CONSTITUTION AND PROCEEDINGS OF THE AGRICULTURAL WAGES BOARD (ENGLAND AND WALES) set up under the Corn Production Act, 1917, issued by the Board of Agriculture on 28 September 1917.

(2) *Journal of the Board of Agriculture*, December 1917.

(3) REGULATIONS MADE UNDER THE CORN PRODUCTION ACT 1917 WITH RESPECT TO THE CONSTITUTION AND PROCEEDINGS OF THE AGRICULTURAL WAGES BOARD (ENGLAND AND WALES) issued by the Ministry of Agriculture on 23 September 1920.

was that of the 16 seats allocated to representatives of the employers, 13 were to be filled by election by the National Farmers' Union (one of the members so elected to be representative of Welsh farmers), one seat by election by the Welsh Farmers' Union, the other two employers' representatives being nominated by the Board of Agriculture. Of the 16 seats for representatives of workers, nine were to be filled by election by the National Union of Agricultural Workers, five by election by the Workers' Union and the remaining two by nomination by the Minister.

§ 2. DISTRICT WAGES COMMITTEES.

The Corn Production Act provided also for the formation of District Wages Committees. The appointment of such Committees was left to the option of the Agricultural Wages Board, subject to the right of the Board of Agriculture to insist on their formation. The areas for which they were to act was left to the Wages Board to determine, but their composition was to be settled by regulations made by the Board of Agriculture. The Act merely laid down that there was to be equal representation on the District Committees of local employers and local workers and that at least one member of the Wages Board or other person nominated by the Board of Agriculture should act on each District Committee.

In determining the areas in which the District Wages Committees were to act the Wages Board took as the basis the geographical counties, but in some cases counties were grouped to form a single area (1). In all 39 districts were formed of which 27 corresponded to geographical counties, while 11 contained two or more counties. One of the areas was less than a county, the Furness District having been detached from the county of Lancashire and grouped with Cumberland and Westmorland.

The method adopted for the formation of District Wages Committees was for the members of the Wages Board representing the employers to recommend representatives of the local employers, while the members representing the workers recommended representatives of the local workers. These recommendations were carefully considered by a Selection Committee, consisting of four employers' representatives, four workers' representatives and four appointed members. The Selection Committee in turn made recommendations to the Wages Board, who had the final decision in regard to the nomination of the representatives of the local employers and the local workers. To these were added the impartial members appointed for each Committee by the Board of Agriculture.

The earliest District Wages Committees to be formed were established at the end of January 1918, and by the middle of May the Agricultural Wages Board was able to issue a notice stating that Committees had been formed in each of the 39 areas into which England and Wales had been divided.

Under the revised Regulations issued in September 1920, the Agri-

(3) *Journal of the Board of Agriculture*, January 1918.

cultural Wages Board, in appointing representative members had to make their selection from among persons nominated by organizations of employers and workers respectively.

It was the function of the District Wages Committees, as laid down by the Corn Production Act, to recommend to the Wages Board minimum rates of wages applicable to their districts. Only the Wages Board itself could fix, vary or cancel any such rate but it could not make any orders to this effect which should be applicable in any area where a District Wages Committee existed, unless the Committee had either recommended the rate or its variation or cancellation, or had had an opportunity of reporting thereon to the Board.

The Act also empowered the Wages Board to delegate any of its powers and duties (other than the power and duty of fixing minimum rates) to the District Wages Committees. The principal power which was so delegated was that of granting "permits of exemption," that is permits to workers on time-work who were affected by mental or other infirmity or physical injury which rendered them incapable of performing the work of a normally efficient workman to accept employment at rates less than the minimum wage.

§ 3. PROCEDURE IN FIXING MINIMUM RATES.

In fixing any minimum rate of wages the Agricultural Wages Board was obliged, as we have seen, either to act upon the recommendation of a District Wages Committee or to give the Committee the opportunity to report upon the proposal. It had also to give public notice of the rate it proposed to fix and to consider any objections which might be lodged with it within one month. When a rate was fixed it had further to give notice of such rate for the information of the employers and workers affected. The same procedure applied to the variation or cancellation of any Order fixing a minimum rate.

§ 4. THE PRINCIPLES ON WHICH MINIMUM WAGES WERE FIXED.

The Corn Production Act imposed upon the Agricultural Wages Board the duty of fixing minimum rates of wages for *time-work* and empowered it, if it thought it necessary or expedient, also to fix minimum rates of wages for *piece-work*. Considerable latitude was allowed to the Board on fixing rates applicable universally, or different rates for different districts, for different classes of workers or for different kinds and conditions of employment.

In the case of able bodied men the Act itself fixed a rate for time-work below which the minimum rate to be fixed by the Wages Board was not to go. This rate was to be such that, when the customary allowances were taken into account, the total wages would be equivalent to payment for an ordinary day's work at a rate of 25s. a week. This provision did not apply to boys, women and girls.

The principle laid down by the Act for the guidance of the Wages Board in fixing minimum rates, whether for time-work or for piece-work, was that it should try to secure, so far as practicable, for able-bodied men such wages as were, in its opinion, adequate to promote efficiency and to enable a man in an ordinary case to maintain himself and his family in accordance with such standard of comfort as might be reasonable in relation to the nature of his employment.

When a minimum rate had been fixed, the payment by an employer of a less rate was an offence punishable by a fine of not more than £20. If, after conviction, the employer persisted in paying less than the minimum rate fixed, he rendered himself liable to a fine not exceeding £1 for every day on which the offence was continued. Pending the fixing of minimum wages by the Wages Board, the rate of 25s. a week for able-bodied men was made applicable all over the country, and if less wages were paid the worker was entitled to recover the difference from his employer as a civil debt. When proceedings to recover were taken, the value of the allowances, if it were disputed, was to be determined by the Court.

§ 5. BENEFITS AND ALLOWANCES AS PART PAYMENT OF WAGES.

The Agricultural Wages Board found it necessary to take steps at once to decide upon the principles or method to be adopted in estimating the value of those benefits and allowances which were to be calculated as part payment of wages. At its second meeting, held on 20 December 1917, it appointed two committees, each consisting of four employers' representatives, four workers' representatives and four appointed members to consider respectively on what basis the rent of cottages should be assessed and other benefits and allowances should be valued (1).

It was not, however, until September 1918 that the Board issued an order on the subject. This order, which was entitled "Order as to Benefits and Advantages which may be Reckoned as Payment of Wages in lieu of Payment of Cash," defined such benefits and advantages as including provision by an employer for a workman employed by him of:

- (1) Milk, including skimmed or separated milk.
- (2) Potatoes.
- (3) Lodging, except in any case in which the District Wages Committee shall determine that the lodging accommodation provided is so defective as to be injurious to health.
- (4) Board, including any meals but not intoxicating drink (2).
- (5) A cottage, including any garden hitherto given or let with the cottage, except where the cottage is one in regard to which the Medical Officer of Health has reported that it is in a state so dangerous or injurious to health as to be unfit for human habitation.

(1) *Journal of the Board of Agriculture*, January 1918.

(2) It is illegal under the Truck Acts to reckon intoxicating drinks as allowances in part payment of wages.

The values at which milk and potatoes were to be reckoned were the current producers' wholesale prices, which were to be ascertained and determined by the District Wages Committee. Lodging and board were to be reckoned at such weekly sums as the District Wages Committee should determine.

The value of new milk was originally determined, for all parts of the country, as 6 $\frac{1}{2}$ d. per quart or the wholesale price fixed for any particular district by the Local Food Control Committee, whichever were the lesser. For skimmed or separated milk, the value was universally fixed at 8d. per gallon.

Under a revised determination which came into force on 19 July 1920, the value of new milk was to be reckoned as 4 $\frac{1}{2}$ d. per quart from 1 May to 30 September and as 6d. per quart from 10 October to 30 April.

For potatoes of the second grade, the values originally determined varied from £5 5s. per ton up to £7 10s. In the majority of counties it was determined at £6 5s. or £6 10s. The value of potatoes of the first grade was determined as 10s. per ton above that of potatoes of the second grade.

A revised determination was made with effect from 13 December 1920, under which values varying from £10 to £6 were fixed for potatoes of any grade or variety.

Great differences were apparent in the estimation of the value of board and lodging. For full board and lodging for a week of seven days, the estimated values in the various District Wages Committee areas as originally determined and as subsequently modified are shown in Table I (male workers) and Table II (female workers).

Values were also determined in all areas for partial board and lodging of various degrees as, for example, lodging only, all food and drink (excluding intoxicants), dinner only, breakfast only. Similar variations were observable in the values determined in the different areas, as in the values of full board and lodging.

It will be noted from Table II that, as from 14 July 1919, the values of full board and lodging were made uniform for female workers throughout England and Wales and the same is true of the values determined for partial board and lodging.

The method laid down for the assessment of the value of a cottage was less simple. If the cottage were held from the employer rent and rate free, the provision of the cottage might be reckoned at an amount not exceeding 3s. per week. In other words an amount not exceeding 3s. per week may be deducted from the minimum wage.

A District Wages Committee might, however, decide that the average value customarily attached to cottages in its area was less than 3s. a week and might fix a lower maximum amount at which the provision of a cottage should be reckoned. In a few parts of the country, this maximum value was fixed by District Wages Committees at less than 3s. per week. Thus in North Buckinghamshire it was fixed at 2s.; in Northamptonshire, Herefordshire, Mid-Buckinghamshire and parts of the county of Somerset

TABLE I. — *Value of Full Board and Lodging as Determined for Male Workers.*

District Wages Committee Areas	Full board and lodging at various ages											
	Over 18		17-18		16-17		15-16		14-15		Under 14	
	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.
A As originally determined :												
Berkshire; Buckinghamshire; Cambridgeshire, Huntingdonshire and Bedfordshire; Cheshire; Derbyshire; Essex; Hampshire; Hertfordshire and Middlesex; Kent; Lancashire (except Furness District); Lincolnshire; Norfolk; Northumberland and Durham; Nottinghamshire; Oxfordshire; Somerset; Suffolk; Sussex; Warwickshire; Wiltshire; Yorkshire	18	0	18	0	17	0	15	0	12	0	9	0
Cumberland, Westmoreland and the Furness District of Lancashire; Dorset; Leicestershire and Rutland; Northamptonshire; Shropshire; Staffordshire . . .	17	6	17	6	16	6	15	0	12	0	9	0
Surrey (1): Herefordshire	17	0	17	0	16	0	15	0	12	0	9	0
Devonshire	16	0	16	0	15	0	13	0	11	0	9	0
Cornwall; Gloucestershire; Worcestershire; Brecon and Radnor; Denbigh and Flint; Glamorgan and Monmouth (2) . . .	15	0	15	0	15	0	13	0	11	0	9	0
Merioneth and Montgomery	14	0	14	0	14	0	13	0	11	0	9	0
Pembroke, Carmarthen and Cardigan . . .	12	6	12	6	12	6	11	0	10	0	9	0
Anglesey and Carnarvon	12	0	12	0	12	0	11	0	10	0	9	0
B As subsequently varied :												
Cumberland, Westmoreland and the Furness District of Lancashire; Glamorgan and Monmouth; Northumberland and Durham; Staffordshire; Yorkshire	20	0	18	0	17	0	15	0	12	0	9	0
Anglesey and Carnarvon; Berkshire; Buckinghamshire; Cambridgeshire, Huntingdonshire and Bedfordshire; Cheshire; Denbigh and Flint; Essex; Hampshire; Hertfordshire and Middlesex; Kent; Lancashire (except the Furness District); Lincolnshire; Merioneth and Montgomery; Norfolk; Nottinghamshire; Oxfordshire; Pembroke; Carmarthen and Cardigan; Somerset; Suffolk; Sussex; Warwickshire; Wiltshire	18	0	18	0	17	0	15	0	12	0	9	0
Northamptonshire; Leicestershire and Rutland	18	0	18	0	16	6	15	0	12	0	9	0
Surrey	18	0	18	0	16	0	15	0	12	0	9	0
Brecon and Radnor	18	0	18	0	13	0	13	0	11	0	9	0
Dorset; Shropshire; Worcestershire . . .	17	6	17	6	16	6	15	0	12	0	9	0
Gloucestershire; Herefordshire	17	0	17	0	16	0	15	0	12	0	9	0
Cornwall; Devonshire	16	0	16	0	15	0	13	0	11	0	9	0

(1) Male workers over 21 years in Surrey, 17s 6d.

(2) Male workers over 19 years in Glamorgan and Monmouth, 15s 6d.

TABLE II. — *Value of Board and Lodging as Determined for Female Workers.*

District Wage Committee Area	Full board and lodging at various ages									
	Over 17		16-17		15-16		14-15		Under 14	
	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.
A As originally determined:										
Berkshire; Buckinghamshire; Cambridgeshire, Huntingdonshire and Bedfordshire; Cheshire; Derbyshire; Essex; Hampshire; Hertfordshire and Middlesex; Kent; Lancashire (except Furness District); Lincolnshire; Norfolk; Northumberland and Durham; Nottinghamshire; Oxfordshire; Somerset; Suffolk; Sussex; Warwickshire; Yorkshire	13	0	12	0	11	0	10	0	9	0
Cumberland, Westmoreland and the Furness District of Lancashire; Dorset; Leicestershire and Rutland; Northamptonshire; Shropshire; Staffordshire; Surrey	12	6	11	6	11	0	10	0	9	0
Herefordshire	12	0	11	0	11	0	10	0	9	0
Devonshire	11	6	11	0	11	0	10	0	9	0
Anglesey and Carnarvon; Brecon and Radnor; Cornwall; Denbigh and Flint; Glamorgan and Monmouth; Gloucestershire; Merioneth and Montgomery; Pembroke, Carmarthen and Cardigan; Worcestershire	11	0	11	0	11	0	10	0	9	0
B As varied with effect from 1st July 1919:										
All District Wage Committee Areas in England and Wales.	13	0	12	0	11	0	10	0	9	0

at 2s. 6d. In by far the greater part of the country, however, the District Wages Committees agreed to the general estimate of 3s. per week.

The District Wages Committees were also authorized to decide as to any particular cottage that it was defective in respect of accommodation, repairs or sanitation, and to fix an amount to be deducted from the maximum value on the ground of such defects.

Where the cottage was held by the worker from the employer at a rental, which is often a "customary" or "nominal" rental, the provision of the cottage might still be reckoned as a "benefit or advantage," provided the amount of rent and rates paid by the occupier was less than the maximum value fixed for the district (generally, as we have seen, 3s. per week). The amount which might be deducted from the minimum wage in respect of the provision of such a cottage was the maximum value less the amount of rent and rates paid by the occupier. If the rent and rates paid by the occupier of the cottage equalled or exceeded the maximum value, no deduction in respect of it might be made from the payment in cash of the full minimum wage.

The Order made by the Wages Board did not, of course apply to cottages which were held under a contract of tenancy which was separate and distinct from the contract of service. It was accordingly open to employer and worker to agree for the payment of the minimum wages in full and to make an independent agreement for the renting of the cottage.

§ 6. HOURS OF EMPLOYMENT: OVERTIME AND "WALKING TIME".

In fixing minimum rates of wages for time-work, the Wages Board determined both the minimum wages for a week's work and also the minimum rates per hour to be paid for overtime. To decide what should be considered overtime it was necessary to fix the number of hours' work which constituted the normal week's work. This varied somewhat from county to county and was different in "Summer" from what it was in "Winter." "Summer" was with rare exceptions reckoned as the period from the first Monday in March to the last Sunday in October; "Winter" was the remaining period of the year. The most usual number of hours per week originally fixed for ordinary labourers was 54 in Summer and 48 in Winter, but in regard to special classes of workers there were great variations, not only as between counties, but as between different parts of the same county. So difficult was it to determine the number of hours worked by special classes that at first the Wages Board was obliged often to content itself in its orders with stating that the number of hours per week was to be taken as the "customary" number, but it afterwards endeavoured to fix a definite number of hours in all cases.

Even when the number of hours per normal week's work was fixed this was not sufficient to determine what work should be counted as overtime work. The distribution of the hours had to be considered. In the case of ordinary workers, it was assumed in the earlier orders that no ordinary work was done on Sundays. All work done on Sundays was,

therefore, treated as overtime and a special minimum rate was fixed for Sunday overtime work. A minimum rate was also fixed for week-day overtime work and this was payable in respect of all employment in any week (excluding Sundays) in excess of the number of hours which formed the basis of the weekly wage.

A demand soon arose for the adoption in agriculture of the weekly half-holiday which is customary in England in almost all other kinds of labour. The Wages Board showed themselves sympathetic towards this demand and by an Order which came into force on 3 March 1919 extended the definition of overtime employment to include "all employment in excess of 6 $\frac{1}{2}$ hours on a Saturday or on such other day (not being Sunday) in every week as may be agreed between the employer and the worker."

The original definition, be it noted, was merely extended. The hours in excess of 6 $\frac{1}{2}$ hours worked on the short day were reckoned in any case as overtime, but they were not counted twice over. If, for example, the number of hours which formed the basis of the weekly wage were 48 and the worker did 51 hours' work in the week (exclusive of Sunday) including 8 hours done on the short day, he would be paid overtime wages for 3 hours, the difference between 51 hours and 48. The 1 $\frac{1}{2}$ hours' overtime work which he did on the short day would be included in the three hours' overtime which he had done during the week.

This is the simplest case. Let us take now the case in which the worker only did 48 hours during the week, but did 8 hours on the short day. Here it was necessary to inquire what agreement the employer had made with the worker.

Suppose first that the hours of work agreed between the employer and the worker are 48, to be spread equally over the six days. On the short day 1 $\frac{1}{2}$ hours out of the 8 hours worked would be overtime. Hence the hours of work agreed *exclusive of overtime employment* are only 46 $\frac{1}{2}$ hours per week. But according to clauses in the previous orders of the Wages Board, if the agreed number of hours in the week, exclusive of overtime employment, were less than the number of hours which forms the basis of the weekly wage (in the supposed case, 48 hours), the full minimum weekly wage was nevertheless to be paid. In this case, then, the worker was entitled to the minimum weekly wage plus overtime wages for 1 $\frac{1}{2}$ hours.

In the second place, let us suppose that the employer had agreed with the worker that the 48 hours' work should be so arranged that only 6 $\frac{1}{2}$ hours should be done on the short day and the remaining 41 $\frac{1}{2}$ hours spread over the other five days. In the supposed case the worker had, it is true, done 48 hours during the week, but he had only done 46 $\frac{1}{2}$ hours of normal work instead of 48 hours, as agreed. The employer, then, was entitled to deduct the wages, calculated at the normal rate, in respect of 1 $\frac{1}{2}$ hours. (The normal rate per hour would in the supposed case be a 48th part of the minimum weekly wages). 'But, on the other

and, the worker was entitled to be paid overtime wages in respect of the $1\frac{1}{2}$ hours of overtime which he worked on the short day.

These examples sufficiently explain the method by which overtime was calculated in respect of the short day (1).

It should be noted that the Wages Board had no power to determine or to regulate the hours of work of agricultural workers or their arrangement. Employer and worker might agree upon any number of hours arranged in any way they liked, but they did so subject to the condition that if the total number of hours on week-days exceeded a certain number of hours determined by the Board, or if the hours worked on the short day exceeded $6\frac{1}{2}$ hours, the excess hours were to be regarded as overtime.

The short day was originally intended to be of universal application, but for certain counties Orders were issued making it inapplicable to workers who, under an agreement with their employers, were entitled to a week's holiday on full pay in each half-year, or a fortnight's holiday on full pay in each year, or to payment of double pay for a week's work in each half-year or for a fortnight's work in each year.

The original Order relating to the short day laid it down that the week-day overtime rate should be payable for all employment in excess of $6\frac{1}{2}$ hours on that day "except time spent on such day by stockmen of any class in connection with the feeding and cleaning of stock," but three months later, the Board issued an order to vary the definition of overtime by omitting this exception, so that for stockmen also any employment in excess of $6\frac{1}{2}$ hours on the short day was to be treated as overtime.

In some counties, however, the exception was renewed by special Orders for certain classes of workers.

In one or two cases the employment to which the weekday overtime rates for male workers related was defined by reference to the number of hours of work on each day, and this method was universally adopted in the case of female workers, with the addition that all employment before 7 a. m. or after 5 p. m. was to be considered as overtime employment.

When a definite number of hours per week was fixed for the special classes it was almost invariably inclusive of Sunday, and overtime was reckoned accordingly.

In connection with the hours of labour the question arose as to whether "walking time," that is the time spent by the worker in walking from his cottage to his place of work and in returning to his cottage, should be reckoned in the hours worked. The position was stated as follows in the *Wages Board Gazette* of 1 February 1919: "In the absence of any special provision in the contract of service or of any well-established custom of the farm, the time spent by the worker in proceeding from his cottage to his place of work, would not be reckoned as employment... By 'place of work' is here meant the actual place where the work is carried

on, but if a man's duties require him to go and return to the farmhouse before or after his work in the fields (*e. g.*, for the fetching or taking back of horses or tools) the time occupied in walking between the two places would rank in his working hours. But if his duties are such that he can go straight from his home to the place of work in the fields and back in the same way, the walking time would not be so reckoned, unless his contract or the custom of the farm provide that he should be paid for that time. The burden of proving the custom would lie on the worker; if it were proved, the custom must be read into the contract of service unless it is expressly excluded."

§ 7 MINIMUM WAGES FOR ORDINARY MALE WORKERS.

We now give a series of tables showing the minimum wages fixed at different times for ordinary male workers, that is, for all male workers except certain classes for which special wages were fixed.

Table III (pages 538-539) shows the minimum weekly wages and overtime rates per hour which had been fixed before 1 January 1919 for ordinary male workers.

The minimum rates for male workmen under 18 years of age were subject to a deduction of 20 per cent. during the first two months of the worker's employment in agriculture, except in Merioneth and Montgomery. This provision was subsequently applied also to Merioneth and Montgomery and remained applicable in all areas, whatever changes were made in the minimum rates fixed.

The number of hours per week in respect of which the minimum wage was payable in most districts was 54 in Summer and 48 in Winter, but in Anglesey it was 56 in Summer and 51 in Winter; in Cheshire, 60 in both Summer and Winter; in Glamorgan and Monmouth, 57 in Summer and 49 $\frac{1}{2}$ in Winter; in Herefordshire, 56 in Summer and 48 in Winter; in Lancashire (excluding the Furness District), 55 $\frac{1}{2}$ in both Summer and Winter, in Nottinghamshire, 60 in Summer and 54 in Winter; in Oxfordshire 52 in both Summer and Winter; in Shropshire, 57 in Summer and 54 in Winter; in Staffordshire, 57 in both Summer and Winter; and in Yorkshire, 54 in Summer and 51 in Winter.

The Sunday overtime rate was payable in respect of all employment on a Sunday and the week-day overtime rate (except in Buckinghamshire and Cheshire) in respect of all employment in any week (excluding Sunday) in excess of the number of hours in Summer and Winter respectively in respect of which the minimum wage was payable. In Buckinghamshire and in Cheshire overtime employment on weekdays was reckoned as all employment in excess of a specified number of hours per day.

No minimum wages for ordinary male workers under 18 years of age had been fixed in Brecon and Radnor before 1 January 1919, but by an Order which came into operation on 10 February 1919, they were fixed as follows: From 17 to 18 years, 25s.; from 16 to 17 years, 20s.; from 15 to 16 years, 18s.; from 14 to 15 years, 14s.; under 14 years, 10s. The

corresponding overtime rates were: From 17 to 18 years, weekdays 7d., Sundays 8 ½d.; from 16 to 17 years, 5 ½d. and 6 ½d.; from 15 to 16 years, 5d. and 6d.; from 14 to 15 years, 4d. and 4 ½d.; under 14 years 3d. and 3 ½d.

By an Order which came into operation on 19 May 1919, an all-round addition was made to the minimum weekly wages previously fixed for ordinary labourers of 18 years of age and over, except in Cumberland, Westmoreland and the Furness District of Lancashire. The increase was: Workers from 18 to 19 years of age, 3s. a week; from 19 to 20 years, 4s. a week; from 20 to 21 years, 5s.; of 21 years and over, 6s. 6d.

At the same time the number of hours per week in respect of which the minimum wage was payable for workers of 18 years and over was made 54 in Summer and 48 in Winter in all counties in England and Wales, with the same exceptions. In those counties where the number of hours per week had been in excess of this number the additions were made, not to the minimum wages previously in force, but to those wages reduced to a basis of 52 hours per week all the year round.

The overtime rates per hour were also adjusted, being fixed on the basis of time and a quarter on week-days and time and a half on Sundays.

The minimum wages for ordinary male workers as they became when this Order came into force are shown in Table IV (pages 540-541). The minimum rates for workers under 18 years of age are (except in the case of Brecon and Radnor) the same as in Table I and the observations apply to them, except in regard to overtime.

The Order relating to the short day having in the meantime come into force, the overtime rates shown in Table II were payable in respect of all employment on a Sunday, all employment in excess of 6 ½ hours on the short day (except time spent on such day by stockmen of any class in connection with the feeding and cleaning of stock) and of all employment in any week (excluding Sunday) in excess of the number of hours in Summer and Winter respectively in respect of which the minimum wage was payable.

On 6 October 1919 an Order came into force whereby without changing the figures of the minimum wages (except for Cumberland, Westmoreland, and the Furness District of Lancashire) they were made applicable, in all counties except Cheshire, to a week of 50 hours in Summer and 48 hours in Winter, as well for ordinary male workers under 18 years of age as for those over that age. For Cumberland, Westmoreland and the Furness District of Lancashire, the following minimum wages were fixed at this time for ordinary male workers over 18 years of age: Over 21 years, 40s.; between 20 and 21 years, 39s.; between 19 and 20 years, 38s. 6d.; between 18 and 19 years, 38s. The corresponding overtime rates were: Over 21 years, weekdays 11d., Sundays 1s. 1 ½d.; between 20 and 21 years, 11d. and 1s. 1d.; between 19 and 20 years, 10 ½d. and 1s. 1d.; between 18 and 19 years, 10 ½d. and 1s. 0 ½d.

This Order did not apply to Cheshire, for which a special Order was issued and came into operation on 27 October 1919. Under this Order the following minimum wages were fixed for a week of 54 hours, Winter

TABLE III. — *Minimum Weekly Wages and Overtime*

District Wages Committee Areas	Minimum weekly wages at various ages											
	Over 21	20-21	19-20	18-19	17-18	16-17	15-16	14-15				
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Manorgan and Monmouth	36 6	35 0	35 0	32 0	28 0	24 6	21 0	18 0				
Cheshire	36 0	36 0	36 0	36 0	31 0	26 0	21 0	16 0				
Northumberland and Durham	36 0	36 0	36 0	33 0	28 0	23 0	18 0	14 0				
Cumberland Westmoreland and Furness District of Lancashire	35 0	35 0	35 0	35 0	30 0	25 0	20 0	15 0				
Yorkshire	35 0	35 0	35 0	35 0	30 0	25 0	20 0	15 0				
Lancashire (except Furness District)	35 0	35 0	35 0	35 0	30 0	25 0	20 0	15 0				
Nottinghamshire	35 0	35 0	35 0	35 0	30 0	25 0	20 0	15 0				
Staffordshire	35 0	34 0	32 0	32 0	26 0	22 0	18 0	14 0				
Middlesex	34 0	31 0	31 0	31 0	26 0	22 0	18 0	14 0				
Lincolnshire	34 0	30 0	30 0	30 0	26 0	22 0	18 0	14 0				
Kent	33 0	33 0	33 0	33 0	28 0	23 0	18 0	14 0				
Surrey	33 0	31 0	31 0	31 0	26 0	22 0	18 0	14 0				
Shropshire	33 0	31 0	31 0	31 0	26 0	22 0	18 0	14 0				
Hertfordshire	32 0	31 0	31 0	31 0	26 0	22 0	18 0	14 0				
Essex; Sussex	32 0	30 0	30 0	30 0	26 0	22 0	18 0	14 0				
Anglesey and Carnarvon	31 6	31 6	31 6	31 6	26 0	22 0	18 0	14 0				
Cornwall	31 0	31 0	31 0	31 0	26 0	22 0	18 0	14 0				
Derbyshire	31 0	31 0	31 0	31 0	26 0	22 0	18 0	14 0				
Devonshire; Hampshire, Pem- broke, Carmarthen, Cardigan	31 0	31 0	31 0	31 0	26 0	22 0	18 0	14 0				
Herefordshire	31 0	31 0	31 0	31 0	26 0	22 0	18 0	14 0				
Leicestershire and Rutland (1)	31 0	31 0	31 0	31 0	26 0	22 0	18 0	14 0				
Oxfordshire	30 0	30 0	30 0	30 0	26 0	22 0	18 0	14 0				
Berkshire, Cambridgeshire, Huntingdonshire and Bed- fordshire; Denbigh and Flint; Dorset; Gloucestershire; Norfolk; Northamptonshire; Oxfordshire; Somerset; Suffolk; Warwickshire; Wiltshire; Worcestershire	30 0	30 0	30 0	30 0	26 0	22 0	18 0	14 0				
Buckinghamshire	30 0	30 0	30 0	30 0	26 0	22 0	18 0	14 0				
Merioneth and Montgomery	30 0	30 0	30 0	30 0	25 0	20 0	18 0	14 0				
Brecon and Radnor	30 0	30 0	30 0	30 0	..	..	..	..

1) The weekly overtime rates for workers over 18 years of age in Leicestershire and Rutland were 8

Rates for Ordinary Male Workers in force on 1 January 1919.

Overtime rates at various ages

Under 14	Over 14		20-21		19-20		18-19		17-18		16-17		15-16		14-15		Under 14
s. d.	W. & A. days	Sundays	Weekdays	Sundays	Weekdays	Sundays	W. & A. days	Sundays	Weekdays	Sundays	Weekdays	Sundays	Weekdays	Sundays	Weekdays	Sundays	s. d.
10 0	9 ¹ / ₂	11 ¹ / ₂	9	11	9	11	8 ¹ / ₂	10	7 ¹ / ₂	9	6 ¹ / ₂	7 ¹ / ₂	5 ¹ / ₂	6 ¹ / ₂	4 ¹ / ₂	5 ¹ / ₂	2 ¹ / ₂ 3
11 0	9	10	9	10	9	10	9	10	8	9 ¹ / ₂	6 ¹ / ₂	8	5	6 ¹ / ₂	4	5	3 3 ¹ / ₂
10 0	10	12	10	12	10	12	9	11	8	9 ¹ / ₂	6 ¹ / ₂	7 ¹ / ₂	5	6	4	4 ¹ / ₂ 3	3 ¹ / ₂
10 0	10	12	10	12	10	12	10	12	8 ¹ / ₂	10	7	8 ¹ / ₂	5 ¹ / ₂	6 ¹ / ₂	4	5	3 3 ¹ / ₂
10 0	9 ¹ / ₂	11 ¹ / ₂	9 ¹ / ₂	11 ¹ / ₂	9 ¹ / ₂	11 ¹ / ₂	9 ¹ / ₂	11 ¹ / ₂	8 ¹ / ₂	10	7	8 ¹ / ₂	5 ¹ / ₂	6 ¹ / ₂	4	5	3 ¹ / ₂ 3 ¹ / ₂
10 0	9 ¹ / ₂	11 ¹ / ₂	9 ¹ / ₂	11 ¹ / ₂	9 ¹ / ₂	11 ¹ / ₂	9 ¹ / ₂	11 ¹ / ₂	8	9 ¹ / ₂	7	8	5 ¹ / ₂	6 ¹ / ₂	4	5	2 ¹ / ₂ 3
10 0	9	10	9	10	9	10	9	10	7 ¹ / ₂	9	6 ¹ / ₂	7 ¹ / ₂	5	6	4	4 ¹ / ₂ 3	3 ¹ / ₂
10 0	9	11	9	10 ¹ / ₂	8 ¹ / ₂	10	8 ¹ / ₂	10	7	8	6	7	4 ¹ / ₂	5 ¹ / ₂	3 ¹ / ₂	4 ¹ / ₂ 2 ¹ / ₂ 3	
10 0	9	11	8 ¹ / ₂	10	8 ¹ / ₂	10	8 ¹ / ₂	10	7	8 ¹ / ₂	6	7 ¹ / ₂	5	6	4	4 ¹ / ₂ 3	3 ¹ / ₂
10 0	9 ¹ / ₂	11 ¹ / ₂	8 ¹ / ₂	10	8 ¹ / ₂	10	8 ¹ / ₂	10	7	8 ¹ / ₂	6	7 ¹ / ₂	5	6	4	4 ¹ / ₂ 3	3 ¹ / ₂
10 0	9	11	9	11	9	11	9	11	8	9 ¹ / ₂	6 ¹ / ₂	7 ¹ / ₂	5	6	4	4 ¹ / ₂ 3	3 ¹ / ₂
10 0	9	11	8 ¹ / ₂	10	8 ¹ / ₂	10	8 ¹ / ₂	10	7	8 ¹ / ₂	6	7 ¹ / ₂	5	6	4	4 ¹ / ₂ 3	3 ¹ / ₂
10 0	9	10	9	9	9	9	9	9	7	8	6	7	4 ¹ / ₂	5 ¹ / ₂	3 ¹ / ₂	4 ¹ / ₂ 2 ¹ / ₂ 3 ¹ / ₂	
10 0	9	11	8 ¹ / ₂	10	8 ¹ / ₂	10	8 ¹ / ₂	10	7	8 ¹ / ₂	6	7 ¹ / ₂	5	6	4	4 ¹ / ₂ 3	3 ¹ / ₂
10 0	9	11	8 ¹ / ₂	10	8 ¹ / ₂	10	8 ¹ / ₂	10	7	8 ¹ / ₂	6	7 ¹ / ₂	5	6	4	4 ¹ / ₂ 3	3 ¹ / ₂
12 0	8 ¹ / ₂	10	8 ¹ / ₂	10	8 ¹ / ₂	10	8 ¹ / ₂	10	7	8 ¹ / ₂	6	7	5	6	4	4 ¹ / ₂ 3	4
10 0	9	10	9	10	9	10	9	10	7	8 ¹ / ₂	6	7 ¹ / ₂	5	6	4	4 ¹ / ₂ 3	3 ¹ / ₂
10 0	9	9	9	9	9	9	9	9	7	8 ¹ / ₂	6	7 ¹ / ₂	5	6	4	4 ¹ / ₂ 3	3 ¹ / ₂
10 0	8 ¹ / ₂	10	8 ¹ / ₂	10	8 ¹ / ₂	10	8 ¹ / ₂	10	7	8 ¹ / ₂	6	7 ¹ / ₂	5	6	4	4 ¹ / ₂ 3	3 ¹ / ₂
10 0	8 ¹ / ₂	10	8 ¹ / ₂	10	8 ¹ / ₂	10	8 ¹ / ₂	10	7	8 ¹ / ₂	6	7	5	6	4	4 ¹ / ₂ 2 ¹ / ₂ 3	
10 0	8 ¹ / ₂	9	8 ¹ / ₂	9	8 ¹ / ₂	9	8 ¹ / ₂	9	7	8 ¹ / ₂	6	7 ¹ / ₂	5	6	4	4 ¹ / ₂ 3	3 ¹ / ₂
10 0	8 ¹ / ₂	10	8 ¹ / ₂	10	8 ¹ / ₂	10	8 ¹ / ₂	10	7 ¹ / ₂	9	6 ¹ / ₂	7 ¹ / ₂	5	6	4	5	3 3 ¹ / ₂
10 0	8 ¹ / ₂	10	8 ¹ / ₂	10	8 ¹ / ₂	10	8 ¹ / ₂	10	7	8 ¹ / ₂	6	7 ¹ / ₂	5	6	4	4 ¹ / ₂ 3	3 ¹ / ₂
10 0	9	9	9	9	9	9	9	9	7	8 ¹ / ₂	6	7 ¹ / ₂	5	6	4	4 ¹ / ₂ 3	3 ¹ / ₂
10 0	8 ¹ / ₂	10	8 ¹ / ₂	10	8 ¹ / ₂	10	8 ¹ / ₂	10	7	8 ¹ / ₂	5 ¹ / ₂	6 ¹ / ₂	5	6	4	4 ¹ / ₂ 3	3 ¹ / ₂
..	8 ¹ / ₂	10	8 ¹ / ₂	10	8 ¹ / ₂	10	8 ¹ / ₂	10	...	...	...	...	...	...	...	...	...

1¹/₂d. per hour overtime in any week and 9d. per hour for all overtime in excess of six hours.

TABLE IV. — *Minimum Weekly Wages and Overtime Rate*

District Wages Committee Areas	Minimum weekly wages at various ages													
	Over 21	20-21	19-20	18-19	17-18	16-17	15-16	14-15	Under 14					
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Northumberland and Durham	42 6	41 0	40 0	36 0	28 0	23 0	18 0	14 0	10 0					
Glamorgan and Monmouth . .	41 6	38 6	37 6	33 6	28 6	24 6	21 0	18 0	10 0					
Yorkshire	41 0	39 6	38 6	37 6	30 0	25 0	20 0	15 0	10 0					
Middlesex	40 6	36 0	35 0	34 0	26 0	22 0	18 0	14 0	10 0					
Lincolnshire	40 6	35 0	34 0	33 0	26 0	22 0	18 0	14 0	10 0					
Lancashire (except Furness District)	39 6	38 0	37 0	36 0	30 0	25 0	20 0	15 0	10 0					
Kent	39 6	38 0	37 0	36 0	28 0	23 0	18 0	14 0	10 0					
Surrey	39 6	36 0	35 0	34 0	26 0	22 0	18 0	14 0	10 0					
Hertfordshire	38 6	36 0	35 0	34 0	26 0	22 0	18 0	14 0	10 0					
Staffordshire	38 6	36 0	33 0	32 0	26 0	22 0	18 0	14 0	10 0					
Essex; Sussex	38 6	35 0	34 0	33 0	26 0	22 0	18 0	14 0	10 0					
Cheshire	38 0	36 6	35 6	34 6	31 0	26 0	21 0	16 0	11 0					
Nottinghamshire	38 0	36 6	35 6	34 6	30 0	25 0	20 0	15 0	10 0					
Cornwall; Derbyshire; Devon- shire; Hampshire; Leice- stershire and Rutland . .	37 6	36 0	35 0	34 0	26 0	22 0	18 0	14 0	10 0					
Pembroke, Carmarthen and Cardigan	37 6	35 0	34 0	33 0	26 0	22 0	18 0	14 0	10 0					
Shropshire	37 0	33 6	32 6	31 6	26 0	22 0	18 0	14 0	10 0					
Anglesey and Carnarvon . .	36 6	35 0	34 0	33 0	26 0	22 0	18 0	14 0	12 0					
Oxfordshire	36 6	35 0	34 0	33 0	26 0	22 0	18 0	14 0	12 0					
Berkshire; Brecon and Radnor; Buckinghamshire; Cambridgeshire, Hunting- donshire and Bedfordshire; Denbigh and Flint; Dorset; Gloucestershire; Hereford- shire; Norfolk; Northamp- tonshire; Somerset; Suf- folk; Warwickshire; Wilt- shire; Worcestershire . .	36 6	35 0	34 0	33 0	26 0	22 0	18 0	14 0	10 0					
Merioneth and Montgomery .	36 6	35 0	34 0	33 0	25 0	20 0	18 0	14 0	10 0					
Cumberland, Westmoreland and Furness District of Lancashire	35 0	35 0	35 0	35 0	30 0	25 0	20 0	15 0	10 0					

for Ordinary Male Workers in force on 19 May 1919.

Over 21		20-21		19-20		18-19		17-18		16-17		15-16		14	
Weekdays	Sundays	Weekdays	Sundays	Weekdays	Sundays	Weekdays	Sundays	Weekdays	Sundays	Weekdays	Sundays	Weekdays	Sundays	Weekdays	Sundays
12	14	11 1/2	13 1/2	11	13	10	12	8	9 1/2	6 1/2	7 1/2	5	6	4	
11 1/2	14	10 1/2	13	10 1/2	13	9 1/2	11	7 1/2	9	6 1/2	7 1/2	5 1/2	6 1/2	4 1/2	
11 1/2	13 1/2	11	13	10 1/2	13	10 1/2	12 1/2	8 1/2	10	7	8 1/2	5 1/2	6 1/2	4	
11 1/2	13 1/2	10	12	9 1/2	11 1/2	9 1/2	11 1/2	7	8 1/2	6	7 1/2	5	6	4	
11 1/2	13 1/2	9 1/2	11 1/2	9 1/2	11 1/2	9	11	7	8 1/2	6	7 1/2	5	6	4	
11	13	10 1/2	12 1/2	10 1/2	12 1/2	10	12	8	9 1/2	7	8	5 1/2	6 1/2	4	
11	13	10 1/2	12 1/2	10 1/2	12 1/2	10	12	8	9 1/2	6 1/2	7 1/2	5	6	4	
11	13	10	12	9 1/2	11 1/2	9 1/2	11 1/2	7	8 1/2	6	7 1/2	5	6	4	
11	13	10 1/2	12 1/2	10 1/2	12 1/2	10	12	8	9 1/2	6 1/2	7 1/2	5	6	4	
10 1/2	13	10	12	9	11	9	10 1/2	7	8	6	7	4 1/2	5 1/2	3 1/2	
10 1/2	13	9 1/2	11 1/2	9 1/2	11 1/2	9	11	7	8 1/2	6	7 1/2	5	6	4	
10 1/2	12 1/2	10	12	10	12	9 1/2	11 1/2	8	9 1/2	6 1/2	8	5	6 1/2	4	
10 1/2	12 1/2	10	12	10	12	9 1/2	11 1/2	7 1/2	9	6 1/2	7 1/2	5	6	4	
10 1/2	12 1/2	10	12	9 1/2	11 1/2	9 1/2	11 1/2	7	8 1/2	6	7 1/2	5	6	4	
10 1/2	12 1/2	9 1/2	11 1/2	9 1/2	11 1/2	9	11	7	8 1/2	6	7 1/2	5	6	4	
10 1/2	12 1/2	9 1/2	11 1/2	9	11	9	10 1/2	7	8	6	7	4 1/2	5 1/2	3 1/2	
10	12	9 1/2	11 1/2	9 1/2	11 1/2	9	11	7	8 1/2	6	7	5	6	4	
10	12	9 1/2	11 1/2	9 1/2	11 1/2	9	11	7 1/2	9	6 1/2	7 1/2	5	6	4	
10	12	9 1/2	11 1/2	9 1/2	11 1/2	9	11	7	8 1/2	6	7 1/2	5	6	4	
10	12	9 1/2	11 1/2	9 1/2	11 1/2	9	11	7	8 1/2	5 1/2	6 1/2	5	6	4	
10	12	10	12	10	12	10	12	8 1/2	10	7	8 1/2	5 1/2	6 1/2	4	

and Summer : Over 21 years, 42s. 6d. ; from 20 to 21 years, 41s. ; from 19 to 20 years, 39s. ; from 18 to 19 years, 39s. ; from 17 to 18 years, 31s. ; from 16 to 17 years, 26s. ; from 15 to 16 years, 21s. ; from 14 to 15 years, 16s. ; under 14 years, 11s. The corresponding overtime rates for week-days and Sundays were : Over 21 years, 1s. and 1s. 2d. ; from 20 to 21 years, 11 ½d. and 1s. 1 ½d. ; from 19 to 20 years, 11d. and 1s. 1 ½d. ; from 18 to 19 years, 11d. and 1s. 1d. ; from 17 to 18 years, 8d. and 9 ½d. ; from 16 to 17 years, 6 ½d. and 8d. ; from 15 to 16 years, 5d. and 6 ½d. ; from 14 to 15 years, 4d. and 5d. ; under 14 years, 3d. and 3 ½d.

By an Order which came into force on 19 April 1920, the minimum rates of wages for ordinary male workers over 21 years of age were modified, while those for ordinary male workers under that age (except in Cheshire) were modified by an Order which came into force on 31 May 1920. For Cheshire the minimum rates for all ordinary male workers were modified by an Order which came into force on 12 July 1920. Table V (pages 545-546) shows the results of these successive modifications.

The wages shown in Table V were in respect of a week of 50 hours in Summer and 48 hours in Winter, except in Cheshire, where they applied to a week of 54 hours, Summer and Winter.

In most counties the overtime rates applied to all employment on a Sunday, all employment in excess of 6 ½ hours on the short day and all employment in any week (excluding Sunday) in excess of the hours in respect of which the minimum weekly wages were payable. To this there were some exceptions. In Cumberland, Westmoreland and the Furness District of Lancashire, in Anglesey and Carnarvon, in Brecon and Radnor, in Denbigh and Flint, and in Merioneth and Montgomery the employment in excess of 6 ½ hours on the short day was not calculated as overtime in the case of any workman who, under an agreement with his employer was entitled in each half-year to one week's holiday on full pay or to payment of double pay for one week's work. In Northumberland and Durham, in Yorkshire, and in Glamorgan and Monmouth, employment in excess of 6 ½ hours on the short day was not calculated as overtime in the case of any worker who under an agreement with his employer was entitled to one week's holiday on full pay in each half-year, or to one fortnight's holiday on full pay in each year or to payment of double pay for one week's work in each half-year or for one fortnight's work in each year. In Pembroke, Carmarthen and Cardigan employment in excess of 6 ½ hours on the short day was not calculated as overtime in the case of any workman who under agreement with his employer was entitled in each year either to one fortnight's holiday (or to holidays amounting to 12 week-days) on full pay or to payment of double pay for a fortnight's work in each year. In Cheshire overtime employment was all employment on Sunday, all employment in excess of 6 ½ hours on the short day and all employment in excess of 9 ½ hours on any other day.

By an Order which came into force on 23 August 1920, the minimum rates of wages for ordinary male workers over 21 years of age were further revised, and by an Order which came into force on 1 March 1921,

the wages for ordinary male workers over 17 years of age in some counties and over 18 years in others were also revised. In neither case was any change made in the number of hours to which the rate applied, nor to the methods of calculating overtime. The rates in force on 1 March 1921 are shown in Table VI (pages 544-545).

Hitherto in each successive change the minimum rate of wages had been increased, but by an Order which came into operation on 5 September 1921 a general reduction was made in the rates for ordinary male workers. At the same time the opportunity was taken of making the rates more nearly uniform in the different areas. The reduced rates are shown in Table VII (pages 546-547).

§ 8. MINIMUM WAGES FOR SPECIAL CLASSES OF MALE WORKERS.

Besides the minimum wages for ordinary male workers, minimum wages were fixed in various areas for certain special classes of male workers. There were considerable variations at different periods in the wages fixed for special classes of workers, and with the increase in the wages of ordinary male workers many of the special classes were afterwards assimilated to them.

Another important change was the determination of the number of hours for which the minimum wages were payable. In most of the earlier Orders no definite number of hours per week was assigned, the number being taken as the "customary" number of hours per week worked by the special classes of labourers. The customary number is very variable and differs in different districts in the same county. This method of determining wages was not considered satisfactory and the later Orders defined the number of hours per week. This did not mean that any change was made in the number of hours actually worked; it only made a change in the hours which were to be considered overtime. In some counties, where the customary hours were longer than the hours fixed, the minimum weekly wage was diminished; the worker did not, however, earn less as he was paid overtime for the hours actually worked.

The minimum wages and overtime rates which had been fixed up to 1 January 1919 for special classes and the hours to which the minimum wages were applicable are shown in Table VIII (pages 548-549).

The number of hours per week in respect of which the minimum wages were payable, whether the "customary" hours or a determined number, included work on Sunday, and the overtime rates were payable for all employment during the week in excess of that number of hours, on weekdays and on Sundays respectively.

In addition to the rates shown in Table VIII, minimum wages had been fixed in Northumberland and Durham for horsemen, cattlemen, and stockmen between 16 and 18 years. These were: From 17 to 18 years, 30s.; from 16 to 17 years, 25s. The corresponding overtime rates were: From 17 to 18 years, weekdays, 8d., Sundays, 9 $\frac{1}{2}$ d.; from 16 to 17 years, weekdays, 6 $\frac{1}{2}$ d., Sundays, 7 $\frac{1}{2}$ d.

TABLE V — *Minimum Weekly Wages and Overtime Rates*

District Wages Committee Areas	Minimum weekly wages at various ages																	
	Over 21		20-21		19-20		18-19		17-18		16-17		15-16		14-15		Under 14	
	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.
Cheshire	48	0	46	0	44	0	42	6	34	0	28	0	22	6	17	0	11	0
Northumberland and Durham	46	6	44	0	41	6	40	0	32	0	26	6	21	6	16	6	10	0
Glamorgan and Monmouth	45	6	44	0	41	6	40	0	32	0	26	6	21	6	16	6	10	0
Yorkshire	45	0	43	0	40	6	39	0	31	0	25	6	21	0	16	0	10	0
Lincolnshire, Middlesex	44	6	43	0	40	6	39	0	31	0	25	6	21	0	16	0	10	0
Cumberland, Westmoreland and Furness District of Lancashire	44	0	42	0	40	0	38	0	30	6	25	0	20	6	15	6	10	0
Kent, Lancashire (except Furness District), Surrey	43	6	42	0	40	0	38	0	30	6	25	0	20	6	15	6	10	0
Essex, Hertfordshire, Staffordshire, Sussex	42	6	40	0	38	0	36	6	29	0	24	0	19	6	15	0	10	0
Anglesey and Carnarvon	42	0	40	0	38	0	36	6	29	0	24	0	19	6	15	0	12	0
All other District Wages Committee Areas	42	0	40	0	38	0	36	6	29	0	24	0	19	6	15	0	10	0

TABLE VI — *Minimum Weekly Wages and Overtime Rates*

District Wages Committee Area ^a	Minimum weekly wages at various ages																	
	Over 21		10-21		19-20		18-19		17-18		16-17		15-16		14-15		Under 14	
	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.
Cheshire	52	0	49	0	46	6	44	6	35	6	28	0	22	6	17	0	11	0
Northumberland and Durham	50	6	46	6	43	6	41	0	32	0	26	6	21	6	16	6	10	0
Glamorgan and Monmouth	50	0	46	6	43	6	41	0	32	0	26	6	21	6	16	6	10	0
Yorkshire	49	0	45	6	42	6	40	0	31	0	25	6	21	0	16	0	10	0
Lincolnshire, Middlesex	48	6	45	6	42	6	40	0	31	0	25	6	21	0	16	0	10	0
Cumberland, Westmoreland and Furness District of Lancashire	48	0	44	6	42	0	39	0	30	6	25	0	20	6	15	6	10	0
Kent Lancashire (except Furness District), Surrey	47	6	44	6	42	0	39	0	30	6	25	0	20	6	15	6	10	0
Essex, Hertfordshire, Staffordshire, Sussex	46	6	43	0	40	6	38	6	30	6	24	0	19	6	15	0	10	0
Anglesey and Carnarvon	46	0	43	0	40	6	38	6	30	6	24	0	19	6	15	0	12	0
All other District Wages Committee Areas	46	0	43	0	40	6	38	6	30	6	24	0	19	6	15	0	10	0

for Ordinary Male Workers in force on 12 July 1920

Overtime rates at various ages																	
Over 21		20-21		19-20		18-19		17-18		16-17		15-16		14-15		Under 14	
Weekdays	Sundays	Weekdays	Sundays	Weekdays	Sundays	Weekdays	Sundays	Weekdays	Sundays	Weekdays	Sundays	Weekdays	Sundays	Weekdays	Sundays	Weekdays	Sundays
d	d	d	d	d	d	d	d	d	d	d	d	d	d	d	d	d	d
13 ¹ / ₂	16	13	15 ¹ / ₂	12	14 ¹ / ₂	12	14	9 ¹ / ₂	11	7 ¹ / ₂	9	6	7	4 ¹ / ₂	5 ¹ / ₂	3	3 ¹ / ₂
14	17	13 ¹ / ₂	16	12 ¹ / ₂	15	12	14	9 ¹ / ₂	11 ¹ / ₂	8	9 ¹ / ₂	6 ¹ / ₂	8	5	6	3	3 ¹ / ₂
14	16 ¹ / ₂	13 ¹ / ₂	16	12 ¹ / ₂	15	12	14 ¹ / ₂	9 ¹ / ₂	11 ¹ / ₂	8	9 ¹ / ₂	6 ¹ / ₂	8	5	6	3	3 ¹ / ₂
13 ¹ / ₂	16	13	15 ¹ / ₂	12 ¹ / ₂	15	12	14	9 ¹ / ₂	11 ¹ / ₂	8	9 ¹ / ₂	6 ¹ / ₂	7 ¹ / ₂	5	6	3	3 ¹ / ₂
13 ¹ / ₂	16	13	15 ¹ / ₂	12 ¹ / ₂	15	12	14	9 ¹ / ₂	11 ¹ / ₂	8	9 ¹ / ₂	6 ¹ / ₂	7 ¹ / ₂	5	6	3	3 ¹ / ₂
13 ¹ / ₂	16	13	15 ¹ / ₂	12	14 ¹ / ₂	11 ¹ / ₂	14	9 ¹ / ₂	11	7 ¹ / ₂	9	6	7	4 ¹ / ₂	5 ¹ / ₂	3	3 ¹ / ₂
13	16	13	15 ¹ / ₂	12	14 ¹ / ₂	11 ¹ / ₂	14	9 ¹ / ₂	11	7 ¹ / ₂	9	6	7 ¹ / ₂	4 ¹ / ₂	5 ¹ / ₂	3	3 ¹ / ₂
13	15 ¹ / ₂	12	14 ¹ / ₂	11 ¹ / ₂	14	11	13 ¹ / ₂	9	10 ¹ / ₂	7 ¹ / ₂	9	6	7	4 ¹ / ₂	5 ¹ / ₂	3	3 ¹ / ₂
13	15 ¹ / ₂	12	14 ¹ / ₂	11 ¹ / ₂	14	11	13 ¹ / ₂	9	10 ¹ / ₂	7 ¹ / ₂	9	6	7	4 ¹ / ₂	5 ¹ / ₂	3	4
13	15 ¹ / ₂	12	14 ¹ / ₂	11 ¹ / ₂	14	11	13 ¹ / ₂	9	10 ¹ / ₂	7 ¹ / ₂	9	6	7	4 ¹ / ₂	5 ¹ / ₂	3	3 ¹ / ₂

for Ordinary Male Workers in force on 1 March 1921

Overtime rates at various ages																	
Over 21		20-21		19-20		18-19		17-18		16-17		15-16		14-15		Under 14	
Weekdays	Sundays	Weekdays	Sundays	Weekdays	Sundays	Weekdays	Sundays	Weekdays	Sundays	Weekdays	Sundays	Weekdays	Sundays	Weekdays	Sundays	Weekdays	Sundays
d	d	d	d	d	d	d	d	d	d	d	d	d	d	d	d	d	d
14 ¹ / ₂	17 ¹ / ₂	13 ¹ / ₂	16 ¹ / ₂	13	15 ¹ / ₂	12 ¹ / ₂	15	10	12	8	9 ¹ / ₂	6 ¹ / ₂	7 ¹ / ₂	5	5 ¹ / ₂	3	3 ¹ / ₂
15 ¹ / ₂	18 ¹ / ₂	14	17	13	16	12 ¹ / ₂	15	9 ¹ / ₂	11 ¹ / ₂	7 ¹ / ₂	9	6	7	4 ¹ / ₂	5 ¹ / ₂	3	3 ¹ / ₂
15	18	14	17	13	16	12 ¹ / ₂	15	9 ¹ / ₂	11 ¹ / ₂	8	9 ¹ / ₂	6 ¹ / ₂	8	5	6	3	3 ¹ / ₂
15	18	14	16 ¹ / ₂	13	15 ¹ / ₂	12	14 ¹ / ₂	9 ¹ / ₂	11 ¹ / ₂	8	9 ¹ / ₂	6 ¹ / ₂	7 ¹ / ₂	5	6	3	3 ¹ / ₂
14 ¹ / ₂	17 ¹ / ₂	14	16 ¹ / ₂	13	15 ¹ / ₂	12	14 ¹ / ₂	9 ¹ / ₂	11 ¹ / ₂	8	9 ¹ / ₂	6 ¹ / ₂	7 ¹ / ₂	5	6	3	3 ¹ / ₂
14 ¹ / ₂	17 ¹ / ₂	13 ¹ / ₂	16	13	15 ¹ / ₂	12	14	9 ¹ / ₂	11	7 ¹ / ₂	9	6	7 ¹ / ₂	4 ¹ / ₂	5 ¹ / ₂	3	3 ¹ / ₂
14 ¹ / ₂	17 ¹ / ₂	13 ¹ / ₂	16	13	15 ¹ / ₂	12	14	9 ¹ / ₂	11	7 ¹ / ₂	9	6	7 ¹ / ₂	4 ¹ / ₂	5 ¹ / ₂	3	3 ¹ / ₂
14	17	13 ¹ / ₂	15 ¹ / ₂	12 ¹ / ₂	15	11 ¹ / ₂	14	9 ¹ / ₂	11	7 ¹ / ₂	9	6	7	4 ¹ / ₂	5 ¹ / ₂	3	3 ¹ / ₂
14	17	13	15 ¹ / ₂	12 ¹ / ₂	15	11 ¹ / ₂	14	9 ¹ / ₂	11	7 ¹ / ₂	9	6	7	4 ¹ / ₂	5 ¹ / ₂	3	4
14	17	13	15 ¹ / ₂	12 ¹ / ₂	15	11 ¹ / ₂	14	9 ¹ / ₂	11	7 ¹ / ₂	9	6	7	4 ¹ / ₂	5 ¹ / ₂	3	3 ¹ / ₂

TABLE VII. — *Minimum Weekly Wages and Overtime Rates for*

District Wages Committee Area	Minimum weekly wages at various ages																Under 14
	Over 21	20-21		19-20		18-19		17-18		16-17		15-16		14-15			
	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.	s.
Cheshire	47	0	44	6	42	0	40	0	32	0	26	0	21	0	16	0	11 0
Cumberland and Durham	46	6	41	0	38	6	36	0	28	0	23	6	19	0	14	6	10 0
Glamorgan and Monmouth	44	0	41	0	38	6	36	0	28	0	23	6	19	0	14	6	10 0
Yorkshire	43	0	40	0	37	6	35	0	28	0	22	6	18	6	15	0	10 0
Lincolnshire, Middlesex	42	6	40	0	37	0	35	0	28	0	22	6	18	6	14	0	10 0
All other District Wages Com- mittee Areas	42	0	40	0	37	0	35	0	28	0	22	6	18	6	15	0	10 0

The Order which came into force on 19 May 1919 varying the minimum wages of workers over 18 years of age affected the special classes of workers as well as the ordinary male workers. The resulting minimum wages and overtime rates for the special classes in force on 19 May 1919 are shown in Table IX (pages 548-549).

Overtime was calculated in the same way as for ordinary male workers at the same date.

By the Order which came into force on 6 October 1919, the special classes of workers were in some counties assimilated to the ordinary male workers; in others the number of hours per week for which the minimum wage was payable was definitively fixed and the minimum wage was varied accordingly. For Cheshire a special order was issued which came into operation on 27 October 1919. The rates in force on the latter date are shown in Table X (pages 550-551).

The methods of calculating overtime varied considerably. In Cambridgeshire, Huntingdonshire and Bedfordshire, overtime was reckoned as all employment in excess of the specified hours in any week (including Sunday) and any employment in excess of 6 $\frac{1}{2}$ hours on the short day, except employment in connection with the feeding and cleaning of stock.

In Cheshire the method of reckoning overtime was the same for the special classes as for the ordinary male workers in that county.

In Cumberland, Westmoreland and the Furness District of Lancashire overtime was all employment in excess of 63 hours in any week (including Sunday) and any employment in excess of 6 $\frac{1}{2}$ hours on the short day except employment in connection with the feeding and cleaning of stock.

Ordinary Male Workers in force on 5 September 1921.

Overtime rates at various ages																	
Overtime	20-21		19-20		18-1		17-16		16-17		15-16		14-15		Under 14		
22	Sundays	Weekdays	Sundays	Weekdays	Sundays	Weekdays	Sundays	Weekdays	Sundays	Weekdays	Sundays	Weekdays	Sundays	Weekdays	Sundays	Weekdays	
d.	l.	d.	l.	d.	a.	d.	d.	d.	l.	d.	l.	d.	l.	d.	l.	d.	
15½	12½	15	11½	14	11	13½	9	10½	7	8½	6	7	4½	5½	3	3½	
16	12½	15	11½	14	11	13	8½	10	7	8½	6	7	4½	5	3	3½	
16	12½	15	11½	14	11	13	8½	10	6½	8	5½	6½	4½	5	3	3½	
15½	12	14½	11½	13	10½	13	8½	10	7	8	5½	7	4½	5½	3	3½	
15½	12	14½	11	13½	10½	13	8½	10	6½	8	5½	6½	4½	5	3	3½	
15½	12	14	11	13½	10½	13	8½	10	6½	8	5½	6½	4½	5	3	3½	

The provision relating to the short day was not, however, to apply in the case of a workman who, under an agreement with his employer, was entitled after having been employed for a full term (expiring at Whitsuntide or Martinmas) to a further sum equal to the amount of his weekly minimum wage.

In Denbigh and Flint and in Merioneth and Montgomery overtime was reckoned as all employment in excess of 6½ hours on the short day, and all employment in excess of the specified hours in any week (including Sunday). The provision relating to the short day was not to apply in the case of any workman who under an agreement with his employer was entitled in each half-year either to one week's holiday on full pay or to payment of double pay for one week's work.

For market garden workers in Essex, the number of hours per week was exclusive of Sunday and overtime was calculated as all employment on a Sunday, all employment in excess of 6½ hours on the short day, and all employment in excess of the specified hours in any week (excluding Sunday).

In Gloucestershire overtime was reckoned as all employment in excess of the specified number of hours in any week (including Sunday) and all employment in excess of 6½ hours on the short day, except employment in connection with the feeding and cleaning of stock.

In Norfolk overtime was reckoned as all employment on Sunday, all employment in excess of 6½ hours on the short day except employment in connection with the immediate care of animals, and all employment in any week (excluding Sunday) in excess of the specified hours. Teamsmen,

TABLE VIII. - Minimum Weekly Wages
and Overtime Rates for Special Classes of Workers in force on 1 January 1919.

Districts Wages Committee Area and Class of Worker	Minimum weekly wage at various ages				Number of hours per week for which minimum wage was payable		Overtime rates at various ages						
	20-21		19-20		Summer	Winter	Over all	16-17		18-19		20-21	
	Over all	s. d.	s. d.	s. d.				s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
CUMBERLAND:													
Head stockman, head teamman and head shepherd	40 0	40 0	40 0	40 0	Custom		9 10	9 10	9 10	9 10	9 10	9 10	9 10
Second stockman, second teamman and second shepherd	38 0	38 0	38 0	38 0			9 10	9 10	9 10	9 10	9 10	9 10	9 10
NORTHUMBERLAND AND DURHAM:													
Horseman, cattleman, stockman (except whole time shepherd)	38 0	38 0	38 0	38 0			10 12	10 12	10 12	10 12	10 12	10 12	10 12
Whole time shepherd	43 0	43 0	43 0	43 0			10 12	10 12	10 12	10 12	10 12	10 12	10 12
CUMBERLAND, WESTMORLAND AND FRYLES DISTRICT OF LANCASHIRE:													
Horseman, cattleman, shepherd	42 0	42 0	42 0	42 0			10 12	10 12	10 12	10 12	10 12	10 12	10 12
Horseman, cowman, shepherd	41 0	39 0	39 0	39 0			9 11 1/2	9 11 1/2	9 11 1/2	9 11 1/2	9 11 1/2	9 11 1/2	9 11 1/2
MIDDLESEX:													
Horseman, stockman, shepherd	40 0	37 0	37 0	37 0			9 11	8 1/2 10	8 1/2 10	8 1/2 10	8 1/2 10	8 1/2 10	8 1/2 10
LINCOLNSHIRE:													
Stockman, teamman, shepherd (confined men)	40 0	36 0	36 0	36 0			9 11	8 1/2 10	8 1/2 10	8 1/2 10	8 1/2 10	8 1/2 10	8 1/2 10
KENT:													
Horseman, stockman, shepherd	39 0	39 0	39 0	39 0			9 11	9 11	9 11	9 11	9 11	9 11	9 11
SURREY:													
Stockman, shepherd, horseman	39 0	37 0	37 0	37 0			9 11	8 1/2 10	8 1/2 10	8 1/2 10	8 1/2 10	8 1/2 10	8 1/2 10
SHROPSHIRE:													
Teamman, cowman, shepherd	39 0	37 0	37 0	37 0			9 10	9 9	9 9	9 9	9 9	9 9	9 9
HERTFORDSHIRE:													
Horseman, stockman, shepherd	38 0	37 0	37 0	37 0			9 11	8 1/2 10	8 1/2 10	8 1/2 10	8 1/2 10	8 1/2 10	8 1/2 10

SHIRE :	38 0	36 0	36 0	36 0	»	»	9 11	8 1/2 10	8 1/2 10
TEAMSMAN, COWMAN, SHEPHERD									
ANGLES AND CARNARVON :									
Horseman, cowman, shepherd, horseman (bull- iff)	36 0	36 0	36 0	36 0	63	63	8 1/2 10	8 1/2 10	8 1/2 10
DERBYSHIRE :									
Stockman, horseman, shepherd	36 0	36 0	36 0	36 0	63	65	9 9	9 9	9 9
HAMPSHIRE :									
Carter, dairyman, cowman, shepherd	37 0	37 0	37 0	37 0	Customary	Customary	8 1/2 10	8 1/2 10	8 1/2 10
BERKSHIRE :									
Head carter, head cowman	37 0	37 0	37 0	37 0	»	»	8 1/2 10	8 1/2 10	8 1/2 10
Head shepherd	35 0	35 0	35 0	35 0	»	»	8 1/2 10	8 1/2 10	8 1/2 10
Under cowman	34 0	34 0	34 0	34 0	»	»	8 1/2 10	8 1/2 10	8 1/2 10
Under carter, under shepherd	33 0	33 0	33 0	33 0	»	»	8 1/2 10	8 1/2 10	8 1/2 10
CAMBRIDGESHIRE, HUNTINGDONSHIRE AND BED- FORDSHIRE :									
Horsekeeper, cowman, shepherd	36 0	36 0	36 0	36 0	»	»	8 1/2 10	8 1/2 10	8 1/2 10
DENBIGH AND FLINT :									
Teamman, cattleman, cowman, shepherd, bull- iff	35 0	35 0	35 0	35 0	61	58	8 1/2 10	8 1/2 10	8 1/2 10
DORSET :									
Carter, cowman, shepherd	36 0	36 0	36 0	36 0	Customary	Customary	8 1/2 10	8 1/2 10	8 1/2 10
GLOUCESTERSHIRE :									
Head stockman, head horseman, head shepherd Under stockman, under horseman, under shep- herd	37 0	37 0	37 0	37 0	»	»	8 1/2 10	8 1/2 10	8 1/2 10
NORFOLK :									
Teamman, shepherd, cowman	36 0	36 0	36 0	36 0	»	»	8 1/2 10	8 1/2 10	8 1/2 10
Bullock-tender, sheep-tender	35 0	35 0	35 0	35 0	»	»	8 1/2 10	8 1/2 10	8 1/2 10
NORTHAMPTONSHIRE :									
Shepherd, stockman, waggoner, milkman	36 0	36 0	36 0	36 0	»	»	8 1/2 10	8 1/2 10	8 1/2 10
SUFFOLK :									
Horseman, stockman, shepherd	36 0	36 0	36 0	36 0	»	»	8 1/2 10	8 1/2 10	8 1/2 10
WARWICKSHIRE :									
Stockman, shepherd, horseman	38 0	36 0	36 0	36 0	»	»	11	8 1/2 10	8 1/2 10
WILTSHIRE :									
Head carter, head cowman, head shepherd	37 0	37 0	37 0	37 0	»	»	8 1/2 10	8 1/2 10	8 1/2 10
MERRIONETH AND MONTGOMERY :									
Stockman, teamster, carter, shepherd	35 0	35 0	35 0	35 0	»	»	8 1/2 10	8 1/2 10	8 1/2 10

TABLE IX. — Minimum Weekly Wages and Overtime Rates for Special Classes of Workers in force on 19 May 1919.

Districts Wages Committee Area and Class of Worker	Minimum weekly wage at various ages				Number of hours per week for which minimum wage was payable		Overtime rates at various ages			
	Over 21	20-21	19-20	18-19	Summer	Winter	Over 21	20-21	19-20	18-19
	s. d.	s. d.	s. d.	s. d.			Week-Sun days	Week-Sun days	Week-Sun days	Week-Sun days
NORTHUMBERLAND AND DURHAM: Whole time shepherd	49 6	48 0	47 0	..	Custom-ary	Custom-ary	12 14	11 ⁷ / ₂ 13 ¹ / ₂	11 ⁷ / ₂ 13	10 12
Horseman, cattlemán, stockman	44 6	43 0	42 0	38 0	"	"				
CUMBERLAND, WESTMORELAND AND FURNESS DISTRICT OF LANCASHIRE: Horseman, cattlemán, shepherd	48 6	47 0	46 0	45 0	"	"	11 ¹ / ₂ 14	11 13 ¹ / ₂	11 13	10 ³ / ₂ 12 ¹ / ₂
YORKSHIRE: Horseman, cowman, shepherd	47 0	43 6	42 6	41 6	"	"	11 ¹ / ₂ 13 ¹ / ₂	11 13	10 ³ / ₂ 13	10 ³ / ₂ 12 ¹ / ₂
LINCOLNSHIRE: Stockman, teamsmán, shepherd	46 6	41 0	40 0	39 0	"	"	11 ¹ / ₂ 13 ¹ / ₂	9 ⁷ / ₂ 11 ¹ / ₂	9 ⁷ / ₂ 11 ¹ / ₂	9 11
ESSEX: Market garden workers	42 6	..	..	..	54	48	10 ¹ / ₂ 13	..	..	..
CHESHIRE: Head stockman, head shepherdl Second stockman, second teamsmán, second shepherdl	42 0	40 6	39 6	38 6	54	48	10 ¹ / ₂ 12 ¹ / ₂	10 12	10 12	9 ⁷ / ₂ 11 ¹ / ₂
DERBYSHIRE: Stockman, horseman, shepherd	42 6	41 0	40 0	39 0	Custom-ary not exceeding 63	Custom-ary not exceeding 65	10 ¹ / ₂ 12 ¹ / ₂	10 12	9 ⁷ / ₂ 11 ¹ / ₂	9 ⁷ / ₂ 11 ¹ / ₂

HAMPSHIRE:	43 6	42 0	41 0	40 0	Custom-ary	Custom-ary	10 ¹ / ₂ 12 ¹ / ₂	10 12	9 ¹ / ₂ 11 ¹ / ₂	9 ¹ / ₂ 11 ¹ / ₂
Carter, dairyman, cowman, shepherd	43 6	42 0	41 0	40 0						
ANGLESSEY AND CARNARVON:										
Horseman, cowman, shepherd, hwsman (bailiff)	41 0	39 6	38 6	37 6	61	61	10 12	9 ¹ / ₂ 11 ¹ / ₂	9 ¹ / ₂ 11 ¹ / ₂	9 11
BERKSHIRE:										
Head carter, head cowman	43 6	42 0	41 0	40 0	Custom-ary	Custom-ary	10 12	9 ¹ / ₂ 11 ¹ / ₂	9 ¹ / ₂ 11 ¹ / ₂	9 11
Head shepherd	41 6	40 0	39 0	38 0			10 12	9 ¹ / ₂ 11 ¹ / ₂	9 ¹ / ₂ 11 ¹ / ₂	9 11
Under cowman	40 6	39 0	38 0	37 0	"	"	10 12	9 ¹ / ₂ 11 ¹ / ₂	9 ¹ / ₂ 11 ¹ / ₂	9 11
Under carter, under shepherd	39 6	38 0	37 0	36 0	"	"	10 12	9 ¹ / ₂ 11 ¹ / ₂	9 ¹ / ₂ 11 ¹ / ₂	9 11
CAMBRIDGESHIRE, HUNTINGDONSHIRE AND BEDFORDSHIRE:										
Horseman, cowman, shepherd	42 6	41 0	40 0	39 0	"	"	10 12	9 ¹ / ₂ 11 ¹ / ₂	9 ¹ / ₂ 11 ¹ / ₂	9 11
DORSET AND FLINT:										
Teamman, cattleman, cowman, shepherd, bailiff	41 6	40 0	39 0	38 0	"	"	11 ¹ / ₂ 14	11 13 ¹ / ₂	11 13	10 ¹ / ₂ 12 ¹ / ₂
DORSET:										
Carter, cowman, shepherd	42 6	41 0	40 0	39 0	"	"	10 12	9 ¹ / ₂ 11 ¹ / ₂	9 ¹ / ₂ 11 ¹ / ₂	9 11
GLOUCESTERSHIRE:										
Stockman, horseman, shepherd	43 6	42 0	41 0	40 0	"	"	10 12	9 ¹ / ₂ 11 ¹ / ₂	9 ¹ / ₂ 11 ¹ / ₂	9 11
Under stockman, under horseman, under shepherd	40 6	39 0	38 0	37 0	"	"	10 12	9 ¹ / ₂ 11 ¹ / ₂	9 ¹ / ₂ 11 ¹ / ₂	9 11
NORFOLK:										
Teamman, shepherd, cowman	42 6	41 0	40 0	39 0	"	"	10 12	9 ¹ / ₂ 11 ¹ / ₂	9 ¹ / ₂ 11 ¹ / ₂	9 11
Sheep tender, bullock tender	41 6	40 0	39 0	38 0	"	"	..	...	...	...
SUFFOLK:										
Horseman, stockman, shepherd	42 6	41 0	40 0	39 0	"	"	10 12	9 ¹ / ₂ 11 ¹ / ₂	9 ¹ / ₂ 11 ¹ / ₂	9 11
WARWICKSHIRE:										
Stockman, shepherd, horseman	44 6	41 0	40 0	39 0	"	"	10 12	9 ¹ / ₂ 11 ¹ / ₂	9 ¹ / ₂ 11 ¹ / ₂	9 11
MEMONETH AND MONTGOMERY:										
Stockman, teamster, carter, shepherd	41 6	40 0	39 0	38 0	"	"	10 12	9 ¹ / ₂ 11 ¹ / ₂	9 ¹ / ₂ 11 ¹ / ₂	9 11

cowmen and shepherds were however entitled to an additional weekly sum of 7s and sheep-tenders and bullock-tenders to an additional weekly sum of 6s in respect of the employment which was precluded from ranking as overtime employment on the short day.

In Suffolk overtime was reckoned in the same manner as in Norfolk, and horsemen, stockmen and shepherds were entitled to an additional weekly sum of 7s in respect of employment which was precluded from ranking as overtime employment on the short day.

In Warwickshire overtime was calculated as all employment in excess of 6½ hours on the short day except employment in connection with the feeding and clearing of stock and all employment in excess of the specified hours in any week (including Sunday).

Special minimum rates of wages for horsemen, cowmen, shepherds and hawsyn (brillits) in Anglesey and Carnarvon were again fixed by an Order which came into operation on 1 March 1920. The Order which came into force on 19 April 1920 varying the minimum rates of wages of male workers of 21 years and over affected the special classes of workers as well as the ordinary male workers.

On 3 May 1920 an Order came into force varying the minimum rates of wages for horsemen, stockmen and shepherds in Suffolk. The minimum rates for male workers (including the special classes) under 21 years of age were modified by the Order which came into force on 31 May 1920. On 14 June 1920 an Order came into force whereby stockmen, shepherds and horsemen in Warwickshire were assimilated to the ordinary male workers. The minimum rates for male workers (including the special classes) of all ages in Cheshire were varied by an Order which came into force on 12 July 1920. The minimum wages and overtime rates for special classes of workers which as a result of these various orders were in force on 12 July 1920 are shown in Table XI (page 554).

In Anglesey and Carnarvon overtime was reckoned as all employment in excess of the specified number of hours in any week (including Sunday) and all employment in excess of 6½ hours on the short day except employment in connection with the feeding and cleaning of stock, but the provision relating to the short day was not to apply in the case of any workman who under an agreement with his employer was entitled in each half-year either to one week's holiday on full pay, or to payment of double pay for one week's work.

The minimum rates of wages of the special classes of workers above 21 years were modified (like those of ordinary male workers) by the Order which came into operation on 23 August 1920 and those for workers under 21 years of age belonging to the special classes by the Order which came into force on 1 March 1921. The resulting minimum wages and overtime rates in force on 1 March 1921 are shown in Table XII (page 555).

Finally the minimum wages of the special classes were reduced by the Order which came into operation on 5 September 1921. The rates for special workers in force on that date are shown in Table XIII (page 556).

TABLE XIII. — *Minimum Weekly Wages and Overtime Rates for Special Classes of Workers in force on 5 September 1921.*

Districts, Wages Committee Area and Class of Worker	Minimum weekly wages at various ages				Number of hours per week for which minimum wage was payable	Overtime rates at various ages										
	Over 21	20-21	19-20	18-19		Weekdays	Sundays	Weekdays	Sundays	Weekdays	Sundays	Weekdays	Sundays			
CHESHIRE: Head stockman, head shepherd, second stockman, second shepherd.	51	0 48	6 46	0 44	0	54	14	17	13½	16	13	15½	12	11½	14	11½
NORTHUMBERLAND AND DURHAM: Whole-time shepherds.	49	0 46	6 44	0 42	0	51	14	17	13½	16	13	15½	12	11½	14	11½
ANGLESEY AND CARNARON: Horseman, cowman, shepherd, shepherd (bailiff).	54	6 51	6 49	6	...	Customary	...	...	...	...	...	...	...	...	...	...
CAMBRIDGESHIRE, HUNTINGDONSHIRE AND BEDFORDSHIRE: Horsekeeper, cowman, shepherd.	53	0 50	0 47	0 44	6	61	13	16	12½	15	12	14	11	13½	13½	13½
DENBIGH AND FLINT: Teamman, cattleman, cowman, shepherd, bailiff.	51	6 48	0 45	0 43	6	59	13	16	12½	15	11½	14	11	13½	13½	13½
ESSEX: Market garden worker.	53	0 50	0 47	0 44	6	61	13	16	12½	15	12	15	11	13½	13½	13½
GLoucestershire: Horseman.	51	6 48	0 45	6 43	6	58	14	17	12½	14½	11½	14	11	13½	13½	13½
Stockman, shepherd.	53	0 50	0 47	0 45	0	60	13	16	12½	15	12	14	11	13½	13½	13½
Under horseman.	48	0 45	0 42	0 40	0	54	13	15½	12½	14½	11½	13½	11	13	13	13
Under stockman, under shepherd.	50	0 47	0 44	6 42	0	57	13	16	12½	15	11½	14	11	13½	13½	13½
MERTONETH AND MONMOUTH: Stockman, teamster, carter, shepherd.	48	0 44	6 42	6 40	0	56	13	15	12	14½	11½	14	11	13	13	13
NORFOLK (1): Teamman, cowman, shepherd.	42	0 39	0 37	0 35	0	48	13	15½	12	14	11	13½	10½	13	13	13
Sheep-tender, bullock-tender.	42	0 39	0 37	0 35	0	48	13	15½	12	14	11	13½	10½	13	13	13
SURREY (2): Horseman, stockman, shepherd.	42	0 39	0 37	0 35	0	50	13	15½	12	14	11	13½	10½	13	13	13

(1) To the minimum wages of teamman, cowman and shepherds was to be added a weekly sum of 8s. 6d. and to those of bullock-tender and sheep-tender a weekly sum of 7s. 6d. in respect of the employment indicated in note (1) of Table X. — (2) To the minimum wage of horseman, stockman and shepherds was to be added a weekly sum of 9s. in respect of the employment indicated in note (1) of Table X.

In Merioneth and Montgomery minimum wages and overtime rates were also fixed (and from time to time varied) for boys under 18 years of age who were wholly or partially boarded by their employers and whose duties included attending to horses and other stock. In Brecon and Radnor minimum wages and overtime rates were fixed for the same class, but did not remain long in force, this class of boys being assimilated to other male workers of the same ages. The minimum wages in force at different dates for this special class are given in Table XIV (page 558). The number of hours per week to which the rates applied included Sunday.

§ 9. MINIMUM WAGES FOR FEMALE WORKERS.

As an almost invariable rule minimum and overtime rates per hour were fixed for female workers. The only exception to this was in Northumberland, where at first minimum weekly wages were fixed for female workers employed by the week or longer period. These wages, which came into force on 21 October 1918 were as follows: Over 18 years, 22s. 6d.; 17 to 18 years, 20s. 3d.; 16 to 17 years, 18s.; 15 to 16 years 15s. 9d.; 14 to 15 years, 13s. 6d.; under 14 years, 11s. 3d. The number of hours per week to which these wages applied was 54 (excluding Sunday) in Summer and 48 (excluding Sunday) in Winter. The corresponding overtime rates were: Over 18 years, weekdays, 6d., Sunday, 7 ½d.; 17 to 18 years, 5 ½d. and 7d.; 16 to 17 years, 5d. and 6d.; 15 to 16 years, 4 ½d. to 5d.; 14 to 15 years, 4d. and 4 ½d.; under 14, 3d. and 4d. Overtime was reckoned as all employment on Sunday and all employment in excess of the specified number of hours in any week (excluding Sunday). When the short day was introduced, any employment on the short day in excess of 6 ½ hours was also reckoned as overtime.

These minimum wages were, however, subsequently cancelled and the minimum rates of wages per hour which had been fixed were made applicable to all female workers in Northumberland.

In Table XV (page 559) we give the minimum rates per hour and overtime rates for female workers at different dates. It will be seen that the wages fixed were at all times very nearly uniform throughout England and Wales. In the first and second Orders, which came into operation on 21 October 1918 and 14 July 1919, only Cumberland, Westmorland and the Furness District of Lancashire, and Yorkshire, had higher rates than the general rate. By the Order which came into force on 31 May 1920 the rates in Cumberland, Westmoreland and the Furness District of Lancashire were assimilated to the general rate, but special rates were fixed for Somerset and for Yorkshire. In the Orders which came into force on 1 March 1921 and 5 September 1921 special rates were fixed only for Yorkshire. As in the case of male workers, the Order which came into force on 5 September 1921 reduced the rates previously fixed.

In the earliest Order relating to female workers overtime was defined as all employment on a Sunday, all employment on any week-day before 7 a. m. or after 5 p. m. and all employment on any weekday in excess of

TABLE XV — Minimum and Overtime Rates for Females Workers in force at Various Dates

District with Commence Date	Minimum rates per hour at various ages					Overtime rates per hour at various ages					
	Over 16	17-18	16-17	15-16	14-15	Unk'd 14	Over 18	17-16	16-15	14-15	Unk'd 14
A In force on 1 October 1918 Cumberland, Westmorland and Lancashire, District of Yorkshire, Yorkshire All other parts of England and Wales	d	d	d	d	d	d	7 1/2	7 1/2	7 1/2	7 1/2	7 1/2
B In force on 14 July 1918 Cumberland, Westmorland and Lancashire, District of Yorkshire, Yorkshire All other parts of England and Wales	6	5 1/2	5	4 1/2	4	3 1/2	7 1/2	7 1/2	7 1/2	7 1/2	7 1/2
C In force on 11 March 1918 Yorkshire All other parts of England and Wales	10	8	7	6 1/2	5 1/2	5	10 1/2	10	10 1/2	10 1/2	10 1/2
D In force on 1 March 1918 Yorkshire All other parts of England and Wales	10	7	6	5	4	3	12 1/2	9	10 1/2	10 1/2	10 1/2
E In force on 5 September 1918 Yorkshire All other parts of England and Wales	8	6	5 1/2	5	4	3	10	7 1/2	8	7 1/2	7 1/2

a specified number of hours. The number was 8 hours all the year round in most parts of England and Wales but in Cambridgeshire, Huntingdonshire and Bedfordshire, in Cumberland and Westmoreland, in Derbyshire, in Devonshire, in Dorset, in Hertfordshire and Middlesex, in Kent, in Northamptonshire, in Nottinghamshire and in Wiltshire, the number was 8 $\frac{1}{2}$ hours in Summer and 8 hours in Winter, while in Cheshire, in Lancashire, in Shropshire, in Glamorgan and Monmouth and in Merioneth and Montgomery, the number was 8 $\frac{1}{2}$ hours all the year round.

The Order which came into operation on 14 July 1919 only changed the minimum and overtime rates for female workers over 18 years of age. By this time the short day had been introduced and all employment in excess of 6 $\frac{1}{2}$ hours on the short day was reckoned as overtime. The subsequent Orders did not introduce any change into the system of calculating overtime.

Under all the Orders, the minimum and overtime rates were subject to a deduction of $\frac{1}{2}d.$ per hour during the first three months of a worker's employment in agriculture.

§ 10. CORN AND HAY HARVEST WAGES.

Corn Harvest of 1919. — In several District Wages Committee areas minimum rates of wages and special overtime rates were fixed for workers employed on the corn harvest in 1919.

In Cambridgeshire minimum weekly wages were fixed for a week of 60 hours (excluding Sundays). These were for male workers over 21 years of age, 73s.; 20 to 21 years, 70s.; 19 to 20 years, 68s.; 18 to 19 years, 66s.; 17 to 18 years, 52s.; 16 to 17 years, 44s.; 15 to 16 years, 36s.; 14 to 15 years, 28s.; under 14 years, 20s. For female workers the rates were: Over 18 years, 55s.; 17 to 18 years, 41s. 6d.; 16 to 17 years, 37s.; 15 to 16 years, 32s. 6d.; 14 to 15 years, 28s.; under 14 years, 23s.

Workers in regular employment on the farm who were employed on harvest work were to be paid at least 24 days at the special rates; for workers

TABLE XVI. — *Corn Harvest of*

District Wages Committee Areas	Over				
		20-21	19-20	18-19	17-18
	<i>d</i>	<i>d</i>	<i>d</i>	<i>d</i>	<i>d</i>
Nottinghamshire	17	16	16	15 $\frac{1}{2}$	13 $\frac{3}{4}$
Lincolnshire	13 $\frac{1}{2}$	11 $\frac{1}{2}$	11 $\frac{1}{2}$	11	8 $\frac{1}{4}$
Oxfordshire	12	12	12	12	7 $\frac{1}{2}$
Dorset	10	10	10	10	7

engaged for the harvest period, the special rates only applied in respect of hours actually worked on the harvest.

In Yorkshire minimum weekly wages were also fixed for employment during the corn harvest. For male workers over 18 years the minimum weekly harvest wage was £4; for male workers under 18 years and for all female workers, it was 50 per cent. higher than the normal minimum weekly wage. Where the worker was employed for the whole of the harvest on a farm comprising more than 10 acres of corn, the special rates were to be paid for a period of four weeks from the day on which he was first employed on harvest work, even if he were not employed for the whole of this period in harvest work, and after the period had expired he was to be paid at the special rate in respect of each day upon which he was employed on such work. Where the worker was employed on a farm not comprising 10 acres of corn, or was employed for less than the whole period, the special rates were payable only in respect of the days on which he was actually employed on harvest work.

In Dorset, Lincolnshire, Nottinghamshire and Oxfordshire, minimum rates per hour were fixed for harvest work. These are set out in Table XVI.

Special overtime rates for harvest work were fixed in thirteen areas. These are shown in Table XVII (page 562). In all the areas except Cambridgeshire and Yorkshire, overtime employment included all employment on Sunday, all employment in excess of 6 $\frac{1}{2}$ hours on Saturday and all employment in excess of 9 $\frac{1}{2}$ hours on any other day.

In Dorset there was a special definition of overtime for stockmen, horsemen and shepherds employed on harvest work; it was all employment in excess of 6 $\frac{1}{2}$ hours on the short day except time spent on that day in connection with the feeding and cleaning of stock and all employment on any day in excess of the hours of employment customary in the area for workers of this class.

In Cambridgeshire overtime did not begin on days other than Sunday and the short day until 10 hours had been worked.

1919: Minimum Rates per Hour.

workers				Female workers					
15-17	15-16	14-15	Under 14	Over 18	17-18	16-17	15-16	14-15	Under 14
<i>d</i>	<i>d</i>	<i>d</i>	<i>d</i>	<i>d</i>	<i>d</i>	<i>d</i>	<i>d</i>	<i>d</i>	<i>d</i>
11	9	6 $\frac{1}{2}$	5	10	9	8	7	6	5
7 $\frac{1}{2}$	6	4 $\frac{1}{2}$	4	9	7	6	5	4 $\frac{1}{2}$	4
6 $\frac{1}{2}$	5	4	3	9	6	5 $\frac{1}{2}$	4 $\frac{1}{2}$	4	3
6	5	4	3	7 $\frac{1}{2}$	5 $\frac{1}{2}$	5	4 $\frac{1}{2}$	4	3

In Yorkshire special overtime rates were fixed for male workers over 18 years of age. To other workers the normal overtime rates applied. For all workers, however, overtime employment during the harvest period was defined as being all employment on Sundays and all employment on weekdays before 6.45 a.m. and after 8 p.m. or (when only cutting or stooking work was in progress) after 7 p.m.

In Suffolk another system was adopted. It was laid down that during the period of corn harvest no employment on harvest work on a weekday was to be treated as overtime employment and every worker was to be paid ordinary wages but was to be entitled to a bonus on the completion of the harvest. This bonus in the case of male workers according to age was: Over 21 years £7 10s, 20 to 21 years £7 4s, 19 to 20 years £7 18s, 18 to 19 years £6 16s, 17 to 18 years £5 7s, 16 to 17 years £4 10s, 15 to 16 years £3 14s, 14 to 15 years £2 17s 6d, under 14 years £2. For female workers the bonus was: Over 18 years, £5 10s, 17 to 18 years £4 3s, 16 to 17 years, £3 15s, 15 to 16 years £3 5s, 14 to 15 years, £2 15s, under 14 years £2. A worker who had only worked a part of the harvest period was only entitled to a corresponding proportion of the bonus.

The hours to be worked during the harvest in Suffolk were to be if required not less than 12 hours on any weekday while the crops were being carted and not less than 11 hours on any weekday while other harvest work was in progress. All employment on harvest work on Sunday was paid for at the rates for Sunday work normally applicable to the worker.

Corn and Hay Harvest of 1920 — For the corn harvest of 1920, minimum weekly wages were fixed for male workers in Glamorgan and Monmouth as follows: Over 21 years, 50s, 20 to 21 years, 48s 6d, 19 to 20 years, 45s 6d, 18 to 19 years, 44s, 17 to 18 years, 35s, 16 to 17 years, 29s, 15 to 16 years, 23s 6d, 14 to 15 years, 18s, under 14 years, 18s. These rates applied in respect of each week in which a worker was employed for at least two days or parts of two days on harvest work.

In Yorkshire the same minimum rates were in force as for the corn harvest of 1919.

In Derbyshire and in Nottinghamshire minimum rates per hour were fixed for harvest work for both male and female workers and in Glamorgan and Monmouth for female workers. These rates are shown in Table XVIII (pages 564-565).

Special overtime rates for harvest work were fixed in 14 District Wages Committee areas. These rates are shown in Table XIX (page 566).

It will be seen that, except in Derbyshire, the same overtime rates were fixed for Sundays as for weekdays. In most areas overtime employment was defined as all employment on a Sunday, all employment in excess of 6½ hours on a Saturday, all employment in excess of 8¾ hours on any other day and all employment in excess of 50 hours in any week (excluding Sunday). In Cheshire, in Cumberland, Westmoreland and the Furness District of Lancashire, in Derbyshire, in Glamorgan and Monmouth

TABLE XVIII. — *Corn Harvest of*

District Wages Committee Areas	Over 21	20-21	19-20	18-19	17-18
	d	d	d	d	d
Nottinghamshire	18	17	16 1/2	15 1/2	12 1/2
Derbyshire	15 1/2	14 1/2	14	13 1/2	10 1/2.
Glamorgan and Monmouth . . . . .	...	...	...	...	...

and in Shropshire the ordinary definition of overtime employment was applicable. In Nottinghamshire no differential overtime rates were fixed for employment on harvest work.

In Suffolk the provisions which had been made in 1920 remained in force. The same provisions were applied in Essex to workers on farms containing more than 50 acres of corn; on a farm containing not more than 50 acres of corn, it was provided that during a period of four weeks from the commencement of the corn harvest on the farm no employment on a weekday (whether on harvest work or not) should be treated as overtime employment and that every worker (whether employed on harvest work or not) should be paid ordinary wages and be entitled to the same bonus, provided that he or she worked, if required, on every weekday 12 hours while the crops were being carted, and 11 hours while other work was in progress.

In Warwickshire and Shropshire special bonuses were fixed in respect of each day on which the worker was wholly or mainly employed on harvest work.

In Warwickshire, in the case of workers employed on a farm containing less than 100 acres of corn, for the first six days of the workers' employment on harvest and in the case of workers employed on a farm containing more than 100 acres for the first twelve days of the worker's employment on harvest, the bonuses were: Over 21 years, 2s. 6d.; 20 to 21 years, 2s. 6d.; 19 to 20 years, 2s. 3d.; 18 to 19 years, 2s. 3d.; 17 to 18 years, 1s. 9d.; 16 to 17 years, 1s. 6d.; 15 to 16 years, 1s. 3d.; 14 to 15 years, 1s.; under 14 years, 6d. For female workers the bonuses were: Over 18 years, 1s. 9d.; 17 to 18 years, 1s. 6d.; 16 to 17 years, 1s. 3d.; 15 to 16 years, 1s. 3d.; 14 to 15 years, 1s.; under 14 years, 6d. The same bonuses were payable on all farms in Shropshire to male and female workers in respect of each day on which they were employed on harvest work for five hours or more (exclusive of overtime employment) but only half the amount was payable in respect of each day on which they were employed on harvest work for less than five hours. On farms in Warwickshire containing less than 100 acres of corn for the

1920: Minimum Rates per Hour.

workers

Female workers

16-17	15-16	14-15	under 14	over 18	17-18	16-17	17-18	14-15	under 14
d	d	d	d	d	d	d	d	d	d
10 1/2	8 1/2	6 1/2	4 1/2	12 1/2	10	9	8	6 1/2	4 1/2
9	7	5 1/2	3 1/2	10 1/2	8	7 1/2	7	5	4
...	...	...	...	7 1/2	6	5 1/2	5	4	3

seventh and subsequent days of the workers' employment on harvest, and on farms containing more than 100 acres of corn for the thirteenth and subsequent days, the bonuses for male workers were: Over 21 years, 1s. 6d.; 20 to 21 years, 1s. 6d.; 19 to 20 years, 1s. 3d.; 18 to 19 years, 1s. 3d.; 17 to 18 years, 1s.; 16 to 17 years, 9d.; 15 to 16 years, 9d.; 14 to 15 years, 6d.; under 14, years, 3d. For female workers the bonuses were: Over 18 years, 1s.; 17 to 18 years, 9d.; 16 to 17 years, 9d.; 15 to 16 years, 9d.; 14 to 15 years, 6d.; under 14 years, 3d.

In Anglesey and Carnarvon, in Cheshire, in Cornwall, in Cumberland, Westmoreland and the Furness District of Lancashire, in Denbigh and Flint, in Derbyshire, in Gloucestershire, in Herefordshire, in Shropshire, in Somerset, in Surrey, in Warwickshire and in Wiltshire the same provisions applied to the hay harvest as to the corn harvest.

C. *Corn and Hay Harvest of 1921.* — For the corn harvest of 1921 the provisions made for the corn harvest of the previous year in Cornwall, in Cumberland, Westmoreland and the Furness District of Lancashire, in Denbigh and Flint, in Devonshire, in Glamorgan and Monmouth, in Herefordshire, in Somerset, in Suffolk, and in Surrey remained unchanged.

Including areas in which the provisions remained unchanged, special overtime rates were fixed in 15 areas. These are shown in Table XX (page 566).

In Glamorgan and Monmouth the ordinary definition of overtime was applicable to these rates. In all the other areas the definition of overtime was the same as that generally adopted for the corn harvest of 1920.

The minimum weekly wages which had been fixed for Glamorgan and Monmouth for male workers were the only minimum weekly wages which remained in force, those fixed for Yorkshire having been cancelled. The minimum rates per hour for female workers in Glamorgan and Monmouth also remained in force, and minimum rates per hour were fixed for both male and female workers in Essex in the case of farms containing not more than 40 acres of corn. These latter rates were: For male workers over 21 years, 1s. 4d.; 20 to 21 years, 1s. 3d.; 19 to 20 years,

TABLE XX. — Corn Harvest of 1921: Special Overtime Rates per Hour.

District Wages Committee Areas	Male workers										Female workers				
	Over 21	20-21	19-20	18-19	17-18	16-17	15-16	14-15	Under 14	Over 18	17-18	16-17	15-16	14-15	Under 14
Yorkshire	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.
Nottinghamshire	24	22	20	20	15	12	10	8	5	20	14	12	10	8	6
Surrey	20	18½	17½	16½	13½	10½	8½	6½	4½	14	11	10	9	7½	5½
Glamorgan and Monmouth (1)	18	17½	17	15½	12½	10½	8½	6½	4½	12	9½	8½	7½	6	4½
Herefordshire	18	17½	16½	16	12½	10½	8½	6½	4½	11	9	8	7½	6	4½
Corwall; Devonshire	18	17	16½	15½	12½	10½	8½	6½	4½	13	10	9½	8½	6½	4½
Warwickshire	18	17	16½	15½	12½	10½	8½	6½	4½	12½	10	9	8	6½	4½
Somerset	17½	16½	15½	14½	12	9½	7½	5½	4	12½	9½	8½	7½	6	5
Derbyshire; Gloucestershire; Wiltshire	17	16	15½	15	11½	9½	8	6½	4½	13½	10	9½	8	6½	4½
Denbigh and Flint	17	15½	15	14	11	9	7	5½	3½	12	9	8	7½	6	4½
Anglesey and Carnarvon; Merioneth and Montgomery	16	16	16	16	13	10½	8½	6½	4½	13	10	9½	8½	6½	4½
15	15	15	15	15	12	9½	7½	6	4½	12½	9½	9	7½	6	4½

(1) For Glamorgan and Monmouth special minimum wages were also fixed.

1s. 2d. ; 18 to 19 years, 1s. 1 1/2d. ; 17 to 18 years, 10 1/2d. ; 16 to 17 years, 8 1/2d. ; 15 to 16 years, 7d. ; 14 to 15 years, 5d. ; under 14 years, 3 1/2d. For female workers over 18 years, 11 1/2d. ; 17 to 18 years, 8 1/2d. 16 to 17 years, 8d. ; 15 to 16 years, 7d. ; 14 to 15 years, 5 1/2d. ; under 14 years, 4d.

The sums payable in Suffolk on completion of harvest remained unchanged but in Essex a new scale of payments was fixed which was made applicable only to farms containing more than 40 acres of corn. The scale of payments was as follows: For male workers, over 21 years, £6 15s. ; 20 to 21 years, £6 5s. ; 19 to 20 years, £6 ; 18 to 19 years, £5 10s. ; 17 to 18 years, £4 10s. ; 16 to 17 years, £3 10s. ; 15 to 16 years, £2 15s. ; 14 to 15 years, £2 5s. ; under 14 years, £1 10s. For female workers over 18 years, £4 15s. ; 17 to 18 years, £3 10s. ; 16 to 17 years, £3 5s. ; 15 to 16 years, £2 15s. ; 14 to 15 years, £2 5s. ; under 14 years, £1 10s. The conditions were also varied slightly, it being provided that the employer should be entitled to require the worker to work not more than 24 weekdays of not more than 11 working hours each. On these days no employment up to 11 hours was to be reckoned as overtime employment, but all employment in excess of 11 hours per day was to be paid at the ordinary overtime rate. The full bonus was to be payable if the worker was employed on harvest work for 24 weekdays, but if he or she was employed for less than 24 days, the bonus was to be proportionately reduced.

The special overtime rates fixed for the corn harvest applied also to the hay harvest in the following areas: Anglesey and Carnarvon; Cornwall; Cumberland, Westmoreland and the Furness District of Lancashire, Denbigh and Flint; Devonshire; Derbyshire; Gloucestershire; Herefordshire; Merioneth and Montgomery; Somerset; Surrey; Wiltshire; Yorkshire.

§ 11. THE ABOLITION OF THE AGRICULTURAL WAGES BOARD.

By an Act which received the Royal Assent on 19 August 1921 (1), the Corn Production Acts were repealed and the Agricultural Wages Board and District Wages Committees were thus abolished. A new system of fixing minimum wages was, however, introduced. It was proposed to set up local Joint Conciliation Committees representing the employers and workmen, and the Minister of Agriculture was empowered to take such steps as he thought best calculated to secure the voluntary formation and continuance of such committees. It was provided that for two years from the passing of the Act, or until a Joint Conciliation Committee was formed, the representatives of the employers and of the workers on any District Wages Committee should act as a Joint Conciliation Committee for any part of the area for which such a Committee did not exist.

(1) The Corn Production Acts (Repeal) Act, 1921.

When a Joint Conciliation Committee has agreed upon a rate of wages for any class of workers in the district (or any part of the district) for which it has been formed, it can submit the agreement to the Minister of Agriculture, who can confirm it and advertize it. If a rate of wages has been so agreed, confirmed and advertized, it becomes an implied term of every contract for the employment of a workman of any class to which the agreement applies that the employer shall pay the workman wages at not less than the rate agreed upon.

The representatives of the employers and workmen on a Joint Conciliation Committee have, respectively, one collective vote on any question, and the chairman is not to have the power to vote, except in respect of any particular matter in respect of which the Committee agrees that he shall have such power. Generally speaking, therefore, no resolution will be regarded as carried unless it has been approved by a majority both of the employers' representatives and of the workers' representatives.

J. K. M.

LAND SYSTEMS

MISCELLANEOUS INFORMATION RELATING TO LAND SYSTEMS ARGENTINA.

A NEW AGRICULTURAL LETTING AGREEMENT. — *Crónica Mensual del Departamento Nacional del Trabajo*, No. 47. Buenos Aires, November, 1921.

By the Law No. 11,170, in date 7 October 1921, there are laid down the regulations which are to govern the agricultural letting agreements in Argentina, relating to an area of land not more than 300 hectares, situated outside the boundary of the communes and intended for the cultivation of cereals or stockbreeding, the payment being due in money or kind, or by delivery of some percentage of the crop.

Form and Limit of the Agreement. — The agreements as described above may be drawn up either by a public instrument or by a private document. To secure confirmation they must be deposited within eight days at the local office of Registration of Property for registration, or sent for that purpose to the magistrate who has jurisdiction in the locality where the land is situated.

When the registration is made within the limit of six days, the agreement is good against a third party from the date of the stipulation; in the case when it is registered after that limit, it will hold good against a third party only from the date of the registration. In the event of its having been brought into being without these formalities, while it is possible to prove its existence in accordance with common law, the agree-

ment is considered as existing in conformity with the law of which we are treating.

The agreements made according to these provisions, when they refer to land situated within the area of national jurisdiction are, during the first five years from the promulgation of the present law, exempt from the payment of tax and from any other duty.

The law lays down that no clauses inserted in the agreements in any contingency shall oblige the tenant to sell the produce to the owner or to any expressly mentioned person ; or to insure the crops or the harvest with a special society or person, or in a special way ; or to make use of a special machine for threshing, for reaping, spreading or carrying the grain, or to rely for that purpose on a particular firm or person ; or finally to give up the rights and the guarantees of safety and protection which this law confers on the tenants.

If there is no fixed date for the termination of the agreement or if the period fixed is less than four years, the tenant has the option of considering the agreement as valid for four years, with the obligation of giving notice to the owner six months before the end of the agreement.

If he does not wish to avail himself of this privilege of the law, he must give notice that he waives it six months before the end of every year, doing so before the magistrate of the locality or in some other legal manner.

Sub-letting of Lands Leased. — The law forbids the transfer of the agreement or the sub-letting of the farm, at least without the express consent of the owner, in which case the period of the transfer or of the sub-let must not be less than four years except by written consent to that effect from the owner himself.

Powers Granted to the Tenant. — The tenant has the right to build a brick house consisting of two rooms and a kitchen, a shed, a barn, a silo for cereals and for fodder and a horse-trough ; he may besides plant five fruit-trees and five forest trees for each hectare of land, up to 500 trees as a maximum. It is understood that he cannot exercise this right where he finds the improvements mentioned already in existence in the property he is about to occupy.

Compensation due from the Owner. — On the expiry of the period of the agreement, the tenant has to give up the farm, compensation being first paid in money by the owner ; this is to be reckoned in proportion to the value of the improvements introduced into the farm, up to a maximum of 10 per cent. of the value which is attributed to the farm for the purposes of payment of the land-tax.

When the tenant and the owner are not in agreement in fixing the value of the said compensation, the law requires that the decision be referred to a special committee, constituted by a representative of the owner, a representative of the tenant and a third person, named by the parties or by the magistrate.

If at the expiry of the agreement the owner agrees to an extension of a fresh period of four years, the compensation for the improvements will be postponed till the end of the new agreement.

The tenant has no claim to any further limit of time for giving up the farm after the expiry of the agreement.

Obligations of the Tenant. — The tenant is under an obligation to devote the land to agricultural operations, in the sense of the letting agreement, and maintain and keep in good condition the enclosures and the improvements he has found on the farm, except for ordinary wear and tear.

As we have said, the rent can be paid by the delivery to the owner of a percentage of the crop. In this case the payment of the percentage must be made after the quantity of seed has been withdrawn that is required by the tenant, such tenant not to give up more than 5 per cent. of the area of the piece of land to pasturage or fruit growing.

Non-liability to Seizure of Implements, etc. — The following are declared not liable to seizure and cannot be distrained: furniture and everything essential to the maintenance and work of the agriculturist, such as domestic utensils, a plough, a seed drill, a reaper, a sulky with its accessories, a cart and harness for six horses, fifteen horses, or three pair of oxen with the necessary equipment for harnessing them to the plough, two mulch cows with their calves, three pigs or other small live stock for the consumption of the family for a whole year, and finally the seed for the following season, but in no case in an amount exceeding what is wanted for the cultivation of the farm, up to a maximum of 80 hectares.

Breaking up of the Lands. — The provisions of this law do not deprive the owners of the power of dividing their land and selling portions, up to 300 hectares each, to buyers who buy them to work them themselves.

If sales of this kind are effected and the period of the letting agreement has expired, the owners can request and obtain the eviction of the occupiers under the terms of the common law, paying in that case the compensation mentioned above.

The non-fulfilment of any of the obligations of the tenant to the owner gives the owner the right to consider the agreement annulled, to demand the eviction of the tenant and the restoration of the land on the terms laid down by the civil code.

It may be noted that irrigated lands are not included among those which can be the object of a letting agreement on the lines laid down by the Law of 7 October 1921. E. F.

ECUADOR.

GRANTS OF LAND FOR COLONIZATION. — *Registro Oficial*. No. 338. Year II. Quito, 28 October 1921.

By the Law dated 8 October 1921 power is given to the Government of the Republic of Ecuador to make colonization agreements in the eastern region, more particularly in the province of Napo-Pastaza.

On the basis of this law, the Government can grant the full possession of 10,000 hectares of uncultivated land to one or more persons, for the estab-

lishment of an agricultural colony consisting of at least 50 families, natives of Ecuador and Colombia.

To be available for such grants, land must be situated near to lines of communication.

So as further to facilitate the founding of the colonies, the Government binds itself for a period of ten years not to levy any duties, State, municipal or otherwise, on the raw materials and generally on all products, including manufactures, which the colonists may export or sell in the territory of the Republic, excluding tobacco and brandy.

In the event of the number of families in the colony being less than that required by the law, the grantee or grantees will pass back to the Government that proportion of the land which corresponds to the number of the families by which the total number falls short of the required number.

In like manner the quantity of land granted will be increased in the event of the number of families being greater than that required by the law.

The agreement will be declared void in the case when after the lapse of eighteen months the families have not established themselves in the place intended for the colony.

The law permits the contracting party or parties to transfer the agreement to others, the authorization of the Government having been obtained.

With the consent of the Government the transfer of the ownership is permitted alike to the contracting parties and their successors.

The law further lays down that the agreement must be ratified by a deed and registered at the Notarial office.

The advantages of the exemption from the above mentioned duties, conferred on the colonists by this law, are extended to all who actually possess lands in the eastern region indicated.

E. F.

FRANCE.

AN OFFICIAL EXPERIMENT IN HOME COLONIZATION (1). — *La Main-d'œuvre agricole*. Paris, March 1922.

On 6 February 1922 a third party of Breton cultivators, natives of Finistère and of the Côtes-du-Nord, proceeded to the South-west. This party was composed of 27 heads of families. At Bordeaux it was divided into two parties: one, including 20 heads of families, went to Périgueux; the other to Montauban.

A Breton expert had gone in advance of the party both into Dordogne and into Tarn-et-Garonne, with a mission from the Ministry of Agriculture to visit the farms reported vacant and to acquaint himself with their value for cultivation.

(1) See *International Review of Agricultural Economics*, November 1921, p. 609 and January-February 1922, p. 121.

At Périgueux a certain number of owners of the vacant farms had been assembled and met the new arrivals. Preliminary matters were entered into, and the parties concerned then went at once to see the proposed farms and to discuss terms. It had been agreed moreover that the leases should be drawn up and signed at the Directorate of Agricultural Administration, in the presence of the President of the Central Bureau of the Agricultural Co-operative Organizations of Finistère, Breton experts, the Director of Agricultural Administration and a representative of the Labour Department of the Ministry of Agriculture.

The object of these arrangements was to facilitate transactions, as the Bretons were not as a rule familiar with the provisions of leases on *métayage*.

At Montauban a certain number of owners had been summoned to the Prefecture in the same way. They met there a delegate of the Ministry of Agriculture, the Assistant Director of Agricultural Administration, and the Breton pioneers.

The distribution of the Bretons cultivators was very quickly effected. This contingent was smaller than had been at first reckoned, a certain number having fallen out at the moment of leaving Brittany. This falling off took place chiefly among the cultivators of the *Côtes-du-Nord* who do not yet know the South-west.

The same arrangements were made in Tarn-et-Garonne as in the Dordogne for the drawing up and signing of the leases.

All the Bretons of the party, that is 27 heads of families, signed the leases before their return to Brittany.

It may be noted that besides the Breton heads of families who have joined the various parties organized up to the present for Dordogne and Tarn-et-Garonne, a certain number of Bretons have entered into negotiations individually with landowners of these departments. The number of Breton families already installed in Dordogne is estimated at 120, and in Tarn-et-Garonne there are some twenty families settled or on the way to be settled.

The President of the Central Bureau of the Agricultural Co-operative Organizations of Finistère and the Breton pioneers made a point of enquiring into the circumstances of Bretons who had been settled for some time in the South-west. The impression they gained is excellent and gives promise of good results from the home colonization scheme which is being carried out.

We may add that apart from the Breton element, a large number of peasant families, natives of different regions, are endeavouring to settle in the South-west, a wide publicity having been given to the offers of vacant farms by the special lists published by the Ministry of Agriculture.

GERMANY

TEN YEARS' WORKING OF THE "EIGENE SCHOLLE" COLONIZATION SOCIETY.

— *Freie wissenschaftliche sozialistische Agrar-Korrespondenz*, No 7-8 Berlin, 15 February, 1922

In 1910 the Home Colonization Society "Eigene Scholle" was formed in Frankfort-on-Oder, as a limited liability company, with an initial capital of three and a half million marks. The Prussian Government took shares to the value of one million marks. At the end of the second year of working the capital of the company reached 8,300,000 marks in round figures. But this sum after ten years' working has not increased beyond 8,563,000 marks.

The chief aim of the society was the stemming of the rural exodus, continually becoming more and more serious.

Up to the time of the outbreak of war, the society had acquired 22,800 hectares of land, and had settled on them 904 families numbering in all 4,151 persons. These 904 families were placed as follows :

371 on holdings for labourers, from 0.125 to 1.5 hectares.

169 on holdings for artisans, from 1.5 to 5 hectares.

86 on small farms, from 5 to 10 hectares.

227 on farms of more than 10 hectares.

For 51 farms particulars are not available as to size.

The War completely blocked the activity of this colonization society and has rendered virtually impossible the creation of small holdings, on account of the immense increase in the prices of farm stock, whether live or dead. Equally the attempts to make arrangements for the disabled and for families of refugees led to no result by reason of the constant rise in wages and prices.

In the ten years of its working the Society acquired altogether 27,236 hectares of land, in round numbers, of which 15,945 hectares of cultivable land has been taken up for colonization, forming 1,769 peasant, artisan and labourers' holdings, and 483 workmen's holdings on the outskirts of the towns ; 4,780 hectares of woodland, of water and of uncultivated land suitable for sylviculture were handed over to the Crown forest lands, and 2,889 hectares (five farms) were resold : the remainder, 3,610 hectares, is still available and will be utilized for the formation of small agricultural holdings.

M. T.

LATVIA.

THE APPLICATION OF THE AGRARIAN REFORM. — *Recueil Mensuel du Bureau centrale statistique de l'Esthonie*, Nos. 3 and 4. Tallinn, 1922.

The Latvian law on agrarian reform orders the formation of a reserve of State lands, including, firstly, the public lands and State forests and, secondly, all other cultivated lands except that part which must be left to the owner, this being of the extent of a medium-sized agricultural holding. It is out of this reserve that the new holdings are formed.

From 1919 to 1921 the number of properties divided up was

1,106. The number of holdings created was 27,386 which may be thus classified :

	Number —	Area —
Holdings not exceeding 2 hectares	1,059	1,333.92
» of between 2 and 5 hectares	905	2,539.50
» » » 5 » 10 »	921	7,314.42
» » » 10 » 15 »	4,733	62,267.23
» » » 15 » 22 »	16,260	303,222.26
» » more than 22 »	3,508	87,247.48
Total	27,386	461,924.81

Besides this distribution, 42,957 hectares have been added to 1,120 existing agricultural holdings held on lease ; 72,238 hectares have been divided up to form 5,887 farms for various purposes, and there remain of the State reserve 2,291 properties, comprising 392,912 hectares.

M. B.

THE INTERNATIONAL INSTITUTE OF AGRICULTURE

ORIGIN OF THE INSTITUTE AND SUMMARY OF THE INTERNATIONAL TREATY

The International Institute of Agriculture was established under the International Treaty of 7 June 1905, which was ratified by forty governments. Twenty-two other governments have since adhered to the Institute.

It is a Government institution in which each country is represented by delegates. The Institute is composed of a General Assembly and a Permanent Committee.

The Institute, always confining its attention to the international aspect of the various questions concerned, shall :

(a) collect, study and publish as promptly as possible, statistical, technical, or economic information concerning farming, vegetable and animal products, trade in agricultural produce, and the prices prevailing in the various markets ;

(b) communicate the above information as soon as possible to those interested ;

(c) indicate the wages paid for farm work ;

(d) record new diseases of plants which may appear in any part of the world, showing the regions infected, the progress of the diseases, and if possible, any effective remedies :

(e) study questions concerning agricultural co-operation, insurance and credit from every point of view ; collect and publish information which might prove of value in the various countries for the organization of agricultural co-operation, insurance and credit ;

(f) submit for the approval of the various governments, if necessary, measures for the protection of the common interests of farmers and for the improvement of their condition, utilizing for this purpose all available sources of information, such as resolutions passed by international or other agricultural congresses and societies, or by scientific and learned bodies, etc.

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Note: The initials at the end of the various articles and notes are those of the rédacteurs who have compiled them from the sources indicated.

PRINCIPAL WEIGHTS, MEASURES AND MONEY OF THE VARIOUS COUNTRIES AND THEIR BRITISH EQUIVALENTS

1 Cadastral arpent (Hungary)	=	1 42201	acres
1 Centimetre	=	0.393715	inches
1 Cho (60 ken) (Japan)	=	119.30327	yards
1 Crown 100 heller (Austria-Hungary)	=	10 d.	at par
1 Crown (100 öre) (Denmark, Norway, Sweden)	=	15.1 $\frac{1}{8}$ d.	at par
1 Deciatine (2 tchetwert, (Russia)	=	2.69966	acres
1 Dinar, gold (100 para) (Serbia)	=	933/64 d.	at par
1 Dollar, gold (\$) (100 cents) (United States)	=	48.5 $\frac{1}{10}$ d.	at par
1 Drachm, gold (100 lepta) (Greece)	=	933/64 d.	at par
1 Egyptian Kantar	=	99.0498	lbs.
1 Feddan Masri (24 Kirat Kamel) (Egypt)	=	1.03805	acres
1 Florin, gold, or Gulden (100 cents) (Netherlands)	=	18.753/64 d.	at par
1 Franc (100 centimes) (France)	=	933/64 d.	at par
1 Gramme	=	0.03527	oz.
1 Hectare	=	2.47109	acres
1 Kilogramme	=	2.2	lbs.
1 Kilometre	=	1093.613	yards
1 Kokou (10 To) (Japan)	=	1.58726	quarts
1 Lei, gold (100 bani) (Rumania)	=	983/64 d.	at par
1 Leu (100 stotinki) (Bulgaria)	=	933/64 d.	at par
1 Lira (100 centesimi) (Italy)	=	933/64 d.	at par
1 Litre	=	0.21998	gallons
	=	0.0275	bushels
1 Mark (100 Pfennige) (Germany)	=	11 $\frac{3}{4}$ d.	at par
1 Mark (100 penni) (Finland)	=	933/64 d.	at par
1 Metre	=	3.28084	feet
1 Milreis, gold (Brazil)	=	25. 261/64 d.	at par
1 Milreis, gold (Portugal)	=	45. 519/64 d.	at par
1 Peseta, gold (100 céntimos) (Spain)	=	933/64 d.	at par
1 Peso, gold (100 centavos) (Argentina)	=	38.1137/64 d.	at par
1 Peso, paper (Argentina)	=	18.825/16 d.	at pa
1 Pound, Turkish, gold (100 piastre) (Ottoman Empire)	=	188.015/64 d.	at par
1 Pund (Sweden,	=	0.93712	lbs.
1 Quintal	=	1.96843	cwis.
1 Rouble, gold (100 kopeks) (Russia)	=	28.1 $\frac{3}{8}$ d.	at par
1 Rupee (16 annas) (British India)	=	$\frac{1}{10}$	of £1 (gold)
1 Talari (20 piastre) (Egypt)	=	48.111/32 d.	at par
1 Verst (Russia)	=	1166.64479	yards
1 Yen, gold 2 fun or 100 sen) (Japan)	=	28.037/64 d.	at par
1 Zentner (Germany)	=	110.23171	lbs.

INTERNATIONAL INSTITUTE OF AGRICULTURE
BUREAU OF ECONOMIC AND SOCIAL INTELLIGENCEINTERNATIONAL REVIEW
OF AGRICULTURAL ECONOMICS(MONTHLY BULLETIN
OF ECONOMIC AND SOCIAL INTELLIGENCE)

Co-operation and Association

CANADA.

CO-OPERATION FOR THE MARKETING OF AGRICULTURAL
PRODUCE AND THE SUPPLY OF FARM REQUISITES.
(Continued).

§ 6. THE CO-OPERATIVE MARKETING OF EGGS AND POULTRY.

Co-operative egg marketing is now being undertaken fairly generally throughout the Dominion. Its development has been made possible by the assistance given by the Dominion Poultry Division, and not only are the amalgamated producers' associations in some instances supplying a considerable proportion of the eggs for local consumption on certain markets, but one co-operative company, the United Farmers' Co-operative Company Limited, of Ontario, has become one of the largest exporters in the Dominion. In all, during 1920, rather more than 3,000,000 dozens of eggs, roughly equivalent to 200 car-lots, were marketed co-operatively.

Prince Edward Island.

Co-operative egg and poultry marketing was first undertaken in Prince Edward Island in 1913, when about forty egg circles were organized. An Act to incorporate the Prince Edward Island Co-operative Egg and Poultry Association was passed in 1914 and amended in 1917. The Association and its incorporating Act have served as models in the development of co-operative egg and poultry marketing associations in various other Provinces of the Dominion. The Prince Edward Island Co-operative Egg and Poultry Association is the medium through which the members market their

poultry and eggs. The produce is not bought by the Association but is consigned to it and sold by the business manager. For all purposes of the Association the members are grouped into separate branches known as Egg and Poultry Selling Associations or Circles each of which is designated by a number. The individual members in each circle also are designated by numbers and these numbers are stamped on their eggs. Each circle is a separate corporate body, managed by a board of directors, but is responsible to the Association for the proper conduct of its business. Members of an egg circle can tender their resignation at any time. No resignation, however, is effective until the end of the then current year. Each new member pays a membership fee to his egg circle and each member pays an annual due. The amounts of both these subscriptions are left to the decision of each individual circle. Of these membership fees 25 per cent. is handed over to the Association which, out of the sum received, provides the circles with account books, forms, etc.

Each egg circle employs an egg collector, who must not be a member of the board of directors. The egg collector has charge of the collection of all eggs, ships them to the central candling station, and apportions the returns among the members according to the quantity and quality received. The remuneration of the egg collector is decided by the board of directors and may be either by way of salary or commission.

Members may not dispose of eggs through an egg circle from hens other than their own. They must, however, deliver all the eggs of their own hens at times and places fixed by the directors of the egg circle, except those kept for their own consumption or breeding purposes or those they wish to sell for breeding purposes. All eggs must be unbroken, clean and not more than one week old, weather and roads permitting. Egg cases are supplied by the central organization and to provide for the identification of ownership, the position of each member's eggs in the case is noted on a chart, known as an "egg case plan." When collecting the eggs the collector gives a receipt of which he retains the counterfoil and in shipping the eggs makes out his invoice from these counterfoils and from the egg case plans.

The Prince Edward Island Co-operative Egg and Poultry Association has no share capital but creates a Capital Fund, of not less than \$15,000 nor more than \$50,000. This fund is formed by annual dues received by the Association from the egg circles, part of these dues being a proportion of the membership fees received by the egg circles. The amount of the Capital Fund fluctuates from year to year and is adjusted annually by the board of directors of the Association. The amount of the Fund is apportioned *pro rata* among the members according to the gross value of the produce contributed within the year in which the fund was accumulated, and a certificate, known as a Capital Certificate, is issued to each member guaranteeing that his share of the Capital Fund shall be returned to him in cash. Such repayment is not made in any year until the fund for the year following has been collected and all business for the year concluded and the books of the Association closed. The Association may also sup-

plement its funds by means of collateral notes furnished by the egg circles as required. These collateral notes are signed by the directors of the egg circles and must not exceed twenty-five dollars per member. Regular annual collateral notes are signed at the annual meeting of the egg circle by the board of directors elected for the ensuing year. Upon receipt of this note by the head office of the Association the note of the previous year is cancelled and returned to the president of the egg circle. A permanent Reserve Fund is provided for by an annual assessment made upon each member on the basis of the net value of the total number of eggs marketed by him through the Association.

The Board of Directors of the Prince Edward Island Co-operative Egg and Poultry Association consists of a president, three vice-presidents and six other directors. The three vice-presidents are chosen one from each of the three counties into which Prince Edward Island is divided. Each egg circle is represented at the annual meeting by two delegates; the meeting is never held later than the last day of April.

The travelling expenses of one delegate are borne by the Association. Provision is made for a committee of three chosen by the board of directors of the Association from among themselves to act as an arbitration board when the territorial boundaries of any egg circle or other business matters are in dispute.

The Association employs a business manager who is solely responsible to the executive of the Association. He is not allowed to maintain a list of the members with their corresponding numbers, nor may such a list be submitted to him at any time. On no account may members submit produce to the Association under their names; they must use their number only. No member may do business with the Association under any other number than that registered on the books of the Central Association except with the written consent of the Secretary.

The major portion of the business of the Association is done with the leading surrounding markets such as Montreal and other Eastern Canadian cities. A considerable business, however, is also done with the New England States. All shipments are marketed under the brand of the Central Association. The produce of the members is paid for on the basis of quality. A stated sum per unit is advanced on all produce received by the Association, some members being paid weekly and some monthly, and the balance of the returns, after providing for all expenses and the reserve fund, are distributed to the members according to the net value of the produce marketed through the Association during the period. The balance in hand at the end of 1919 was \$47,000, of which forty per cent. was distributed to the members.

The Association possesses a central candling and grading station, a poultry killing station and a central hatchery at Charlottetown. By means of the hatchery the Association aids members in improving their stock.

The total number of eggs sold co-operatively in Prince Edward Island in 1920 was 813,830 dozens, valued at \$374,181.

Ontario.

There are about sixty egg circles in Ontario, which in 1920 supplied 1,201,349 dozens of eggs, valued approximately at \$616,844. The Egg and Poultry Department of the United Farmers' Co-operative Company of Ontario is becoming more and more the central selling agency. This company has done away with the stamped egg system, owing to the action of private dealers in stamping eggs of their own, and now uses an egg case plan. The eggs are paid for immediately at the local market price, and any further profits are divided at the end of the season. In 1920 the United Farmers' Co-operative Company marketed about \$600,000 worth of eggs and poultry for its members, making a profit of \$30,000. Some of the egg circles which do not market their eggs through the Company are still using the system of stamping the eggs.

British Columbia.

There is no separate organization for the co-operative handling of poultry produce in British Columbia, but associations like the Fraser Valley Milk Producers' Association handle poultry produce for their shareholders. In 1920 a total of 438,000 dozens of eggs, valued at \$280,320, was sold co-operatively.

Saskatchewan.

Co-operative poultry marketing was first started in Saskatchewan in 1915 when a poultry killing and marketing station was opened in Saskatoon. In 1916 another station was opened at Regina. Both these stations are conducted by the Saskatchewan Co-operative Creameries, Limited. The work is under the supervision of the Provincial Department of Agriculture.

All payments are based on the live weight of the birds when fasted and ready to kill. The poultry is graded, weighed, killed, dressed and packed under the supervision of experts provided by the College of Agriculture. Representatives of the Co-operative Organizations Branch then take charge of the dressed birds and forward advance payments to the shippers at prices which had previously been advertized, funds for this purpose being supplied under the provincial Agricultural Aids Act. The dressed poultry was either sold at once or, if the market was not favourable, placed in cold storage and sold when prices had advanced. When all the birds had been sold, a final payment was forwarded to the producer, only the cost of transport, killing, boxing, and storage charges being deducted from the selling price.

In 1917 the stations at Saskatoon and Regina were operated for five weeks beginning 5 November and at the same time a sub-station was operated at Tantalton for a week.

In Table XIV is shown the quantity of the various grades of poultry received at each of the killing stations in Saskatchewan, the advance payment, and the average price (on live weights) realized during 1917.

TABLE XIV. — *Quantities of Poultry Received and Prices Realized at the Saskatchewan Killing Stations, 1917.*

Kind	Grade	Station			Total	Advance payment per lb	Average price realized on live weights per lb.
		Regina	Edmonton	Saskatoon			
		lbs.	lbs.	lbs.	lbs.	cents	cents
Chicken	1	7,336	1,404	11,221	22,061	14	23
	2	4,346	1,191	2,002	7,539	11	19
	3	103	13	402	578	—	12
Fowl	1	1,148	2,295	8,317	20,310	12	19
	2	2,539	1,322	2,004	5,952	9	16
	3	16	2	413	401	—	9
Turkey	1	5,858	387	6,440	12,621	18	29
	2	1,010	162	1,111	2,583	15	25
	3	—	—	120	120	—	12
Duck	1	1,761	184	2,081	4,031	14	20
	2	—	24	155	179	11	16
Geese	1	482	555	1,135	2,172	14	21
	2	—	38	—	38	11	16
Total		35,289	7,882	36,567	79,738		

The expenses of handling, grading, etc., averaged about 5 cents per lb for each grade.

The total weight handled in 1917 was 79,738 pounds as compared with 59,422 pounds in 1916 and 27,038 pound. in 1915.

Alberta.

With the aid of the Poultry Division of the Dominion Department of Agriculture and the Provincial Poultry Branch, an egg marketing service was established in Alberta in 1917. No special egg-marketing associations were formed, but advantage was taken of the numerous farmers' organizations which already existed. Marketing stations have been established at Calgary and Edmonton at which shipments of eggs from farmers and farmers' organizations are candled and graded. The marketing service renders a report as to the grading of individual producers' lots of eggs, indicating bad eggs, if any, and the quantity of each of two general grades, "Extras" and "Number Ones." Farmers' organizations either appoint a local shipper to receive eggs for shipment or instruct their regular executive to undertake this work. In 1920 there were sold through the marketing service 175,600 dozens of eggs, valued at \$92,978.

The diagram on page 553 represents the "egg case plan" as used by the Alberta Egg Marketing Service. The blank form is shown on the left, while the form on the right is marked to indicate the position in the case of five small lots. In the standard case there are ten "fillers," five in each end, each filler being made to contain 36, or three dozen, egg. Each of the squares on the card represents a filler. Each of the ten large square is again divided into thirty-six small squares. In the marked card (on the right) the numbers 11, 1, 2, 33 and 17 are the numbers given to the five producer from whom the eggs contained in the case were collected. It will be seen that producer number 11 supplied 7 eggs number 1 twelve dozen, number 2 five dozen, number 33 eight dozen and six and number 17 three dozen and eleven.

By means of this plan the candler can locate each farmer's lot in the egg case, candle it separately and report upon it as to the number of eggs falling into each grade.

The following is a sample statement of the Alberta Egg-Marketing Service:—

EGG-MARKETING SERVICE.

*(Under Direction of Dominion and Provincial Departments
of Agriculture).*

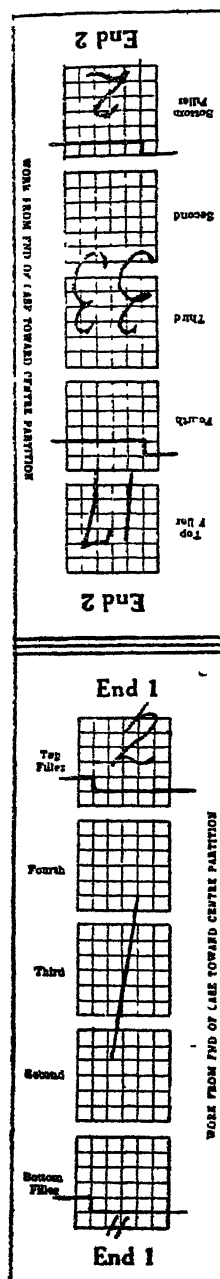
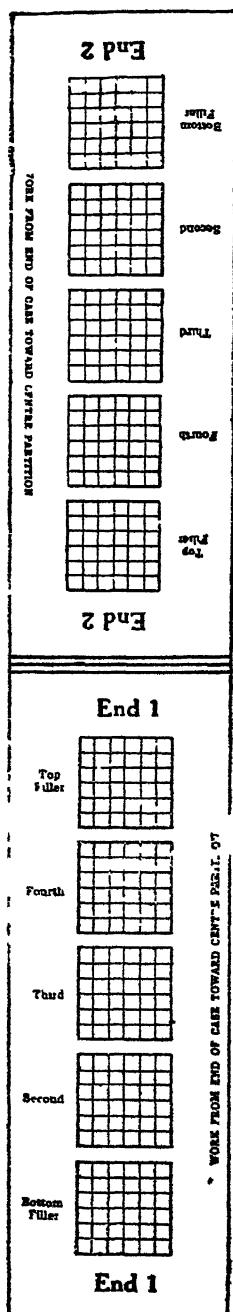
CANDLER'S REPORT.

Shipper, A. A. Hodgson & Co	Lot No 1748
Station, Cayley P. O.	Date Received, August 1st 1918
Quantity, 3 Cases	Candled by A. S.
Capacity, 90—0 Dozen	Certified Correct
Shortage Dozen	EGG MARKETING SERVICE
Actual Contents, 90—0	Per

Producers No.	Total Quantity Supplied	Extras	Grading No. Ones	Bad	Amount due Producers at 37 and 3.
4	—7	—5	—2	..	0.20
1	12—0	6—6	5—4	—2	4.16
2	5—0	—3	1—2	—6	1.46
33	8—6	3—6	4—11	—1	2.91
17	7—11	1—0	2—11	..	1.33
17	23—1	2—8	20—5	..	7.73
6	6—11	1—6	5—5	..	2.34
6	5—1	1—4	3—8	—1	1.70
3	5—0	—11	2—1	..	1.03
39	17—0	—10	16—2	..	5.64
29	4—11	..	4—5	—6	1.46
Totals . .	90—0	18—11	69—9	1—4	29.99

Shipper's Commission :
30.59

Paid August 1918



"Egg case plan" used by the Alberta Egg Marketing Service.

Nova Scotia.

The co-operative handling of eggs has been in existence in Nova Scotia since about 1914. At first the local associations formed egg-circles or associations for the marketing of their eggs on the principle adopted by the Prince Edward Island co-operative poultry produce associations. It was found, however, that the cost of collecting by this method in Nova Scotia where the conditions are different from those on Prince Edward Island, combined with the large amount of collecting done by the local peddlers, made the egg-circle scheme unsatisfactory and it was discontinued. The Poultry Department of the Nova Scotia Agricultural College then undertook to act as a central marketing organization for the local co-operative associations. It received the eggs, preserved, candled and marketed them and took 4 cents per dozen eggs of the proceeds of the sales for handling and marketing expenses, the balance being paid to the managers of the local associations immediately the eggs were sold; about 16,000 dozens of eggs were handled annually in this way. The Department assumed no financial responsibility; it agreed to provide the outlet and assist in organizing the circles, all other work devolving upon the respective managers of the local associations.

In 1921 a central marketing company was formed at Halifax. The company markets the produce of its affiliated egg circles and transacts most of their business for them.

Quebec.

Co-operative egg and poultry marketing is carried out on a large scale in Quebec, especially by the Quebec Farmers' Co-operative Association. The products of the co-operative poultry associations, and of their individual members are purchased and shipped to the Association's warehouses in Montreal and the producer receives the full price minus a small percentage (about 5%) for handling expenses. In 1920 the total number of eggs sold co-operatively in Quebec was 278,700 dozens, valued at \$142,137.

§ 7. THE CO-OPERATIVE MARKETING OF FRUIT AND VEGETABLES.

The co-operative marketing of fruit and vegetables in Canada is most in evidence in the provinces of Ontario, Nova Scotia and British Columbia. Of the fruit marketed, the apple is the most important product, and potatoes predominate amongst the vegetables. In the majority of cases the local co-operative associations were the outcome of agitation for the improvement of the fruit and vegetable crops and they were first formed for the purpose of obtaining this end by the purchase of high class seed of the same variety, so that a large and uniform crop might be assured to the association by its members thus facilitating the marketing and disposal of the crop and the obtaining of the higher prices which first class products warrant. The next step was the purchasing of materials and tools necessary

to the producers and then, sometimes soon, sometimes only after a number of years, co-operative marketing either independently or in conjunction with other co-operative associations.

Ontario.

There is no central co-operative fruit selling organization in Ontario although the Province produces nearly 70 % of total fruit crop of Canada, and recently the need for the formation of such an organization has been strongly advocated. At the 1921 convention of the Ontario Fruit Growers' Association the Fruit Commissioner stated, "There are in Ontario today approximately fifty fruit growers' organizations, thirty-five of which have confined their operations to apples only. Several of these have not been in active marketing for a number of years. Very few, if any, handle the fruit through a central packing house, the work being done in orchards or in buildings on the premises of each member, and each organization marketing its fruit independently of the others, with more or less success. While independent co-operative organizations offer some advantage over individual effort, it is practically impossible for these to successfully compete with other provinces and districts where growers are thoroughly organized and have established an efficient central selling association. In view of this growing competition one hesitates to recommend the further organization of growers into independent units until there has been established a central selling organization with which they can affiliate and to which they can turn over their product to be marketed".

We give details of some of the most successful fruit and vegetable co-operative associations in Ontario.

In the Niagara District there are some seven active associations. Amongst these is the Niagara District Grape Growers, Limited. In the summer of 1919 a small organization was formed which by August 1919 included four or five local organizations. The local wine manufacturers were approached with the object of discussing prices for the coming crop but they refused to confer with the growers, regarding themselves, as formerly, as the price setting factor for the grape crop. The association therefore got in touch with two American dealers, one of whom bought 58 carloads of grapes at a price considerably above that offered by the wine manufacturers. In August 1920 the association obtained its charter. Its headquarters are at St. Catherine's; it has a membership of about 300, controlling about 2,500 acres of the 4,500 acres of vineyards in the Province. The capital is \$500,000 divided into 50,000 shares of \$10 each. The association has about 13 local organizations affiliated to it.

In 1920 the association entered into an agreement with the American Fruit Growers, Incorporated, to handle its export to that country on a commission of 5 %, the Association guaranteeing all collections. In order to handle the crop it was necessary to import over 100,000 bushel baskets from Indiana and Georgia, and of these 96,000 were filled, loading 200

cars, and sent back to the United States. The net price to the grower for his grapes shipped in these bushel baskets was \$80.20 per ton. During the season the association sold 306,000 six-quart baskets, of which 200,000 went to the United States; 75,000 eleven-quart baskets were also sold. These last brought \$103 a ton, or \$93 net after the baskets had been paid for. It is stated that had the association exported its grapes to the United States in American standard baskets it would have received \$12 a ton more. The total turnover of the association during its 1920 season was \$496,000. In paying the growers it fixed the price at \$85 per ton and paid 80 % within 10 days and the remaining 20 % within 30 days. At the end of the year a surplus of \$33,000 was left. This was pooled and divided amongst the members according to the quantity of grapes supplied and the type of package, the eleven-quart basket scoring highest.

In 1920 the fruit crop of the Niagara Peninsula, except grapes, suffered severely from the effects of inadequate distribution and a great shortage of refrigerator cars and labour. Early in October of that year the Minister of Agriculture for Ontario called together a committee of fruit growers of the Peninsula to discuss the situation. It was decided to adopt co-operative methods and a committee was appointed to draw up a scheme. At the end of the year a report was presented of which the following is a summary. That immediate steps be taken to organize and incorporate a company to be known as the Niagara Peninsula Growers, Limited, to act on behalf of the grower members in the grading and marketing of fruit or other products produced by the growers and in the sale and distribution of supplies needed by grower members from time to time. That such a company be not put into operation until a committee of twelve members are satisfied that (a) sufficient capital is assured to the company to meet its obligations, (b) the services of qualified managers have been obtained and (c) a gross sale of not less than \$1,500,000 based on the 1920 crop be assured to the company. That members be requested to sign an agreement to accept and pay for stock in the company according to the following schedule: Growers whose gross sales of fruit for 1920 were less than \$2,000 to have 1 share allotted; those over \$2,000 but less than \$4,000 to have 2 shares allotted; those over \$4,000 but under \$6,000 to have 3 shares allotted; those over \$6,000 but under \$10,000 to have 4 shares allotted, and those growers whose sales in 1920 exceeded \$10,000 to be able to subscribe for 5 shares. The shares are one hundred dollars each and are non-dividend-bearing. Twenty per cent payment for shares to accompany subscription, thirty per cent. on or before 1 October 1921, fifty per cent. or any part thereof, on demand, with interest at 7 per cent. per annum on all unpaid balances after demand. In addition the subscribers agree to deliver to the company all the fruit or other products produced by them which the company may decide to handle.

The committee explained that it was proposed to secure the signing of as many membership agreements as possible up to 1 March 1921, at

which time the lists would be closed and no further stock issued, at least for some time to come. In order to induce the maximum number of subscriptions at the start, a rule was drawn up by which any new member subscribing after the closing date, must pay the full \$100, at once, in cash. It was decided that it would be desirable to be able to transfer shares at any time with the approval of the directors of the company. It will be seen that the principle of one man one vote is not followed, the system being one vote to one share with a maximum of five but the committee felt that many new members would want to come in and that subscribers holding more than one vote would be more willing to sell their surplus non-dividend bearing shares than to keep their extra voting power at the annual meeting of the company and that, in addition, by the process of transferring to new members, the two hundred thousand dollars of capital stock would accommodate, in time, its maximum of two thousand subscribers.

The members have to agree that all fruit grown by them will be delivered to the company except such limited quantities as they may dispose of by gift and such grades and qualities as the management may exclude from shipment or direct to be otherwise disposed of and such quantities as the members may, on their own premises, sell to consumers. But no member must sell fruit for resale outside the company without the sanction of his division manager who must first inform the sales manager.

A member may withdraw from the company at the end of any shipping season or before 1 May of any year. Written notice must be given to the secretary before 1 April.

The territory covered by the company is divided into 14 divisions, each under a division manager who has charge of all local matters and acts under the supervision of the general manager and the sales manager of the company. The general offices of the company are situated at Grimsby, almost in the centre of the territory covered by the company. Grading standards have been determined by the company for each kind of fruit and a division manager may refuse to accept any delivery the shipment of which would in his judgment be detrimental to the best interests of the members. If a certain lot of fruit does not adhere to the proper standard the division manager is empowered to make a fair cut in the price to be paid to the grower, and should a difference of opinion arise as between a member and his division manager respecting the grading, marking, condition of packages or any question affecting a delivery, the member has the right to a further inspection and at the request of such member, his division manager notifies the general manager who causes the delivery in question to be inspected by a competent member or officer of the company whose decision in the case is final.

When the fruit is delivered to the loading platform by the grower he makes out a statement in triplicate of the quantity of fruit delivered with each load. This is checked by the local manager who retains two copies for the company. The proceeds of the various kinds and grades of fruit and other products sold by the company on any one day are pooled as such

equitably amongst the members. The records of receipts and products are forwarded to the central office where they are checked and recorded and the pooling price of each grade of each product for the day is determined. This operation takes four days to complete. Each grower's account is then credited with the proper amounts and one of the duplicate delivery receipts returned to him with the pooling price filled in. By this system every grower delivering fruit on the same day is assured of getting the same price for it, and although a large amount of clerical work is necessary the overhead expenses of the company have never gone above ten per cent. Payments to the growers are made twice a month, about the tenth and the twenty-fifth, at the rate of 80 per cent. of their sales. The balance is retained by the company to cover overhead charges and reserve fund. Any balance left over at the end of the year is paid to the grower in proportion to the volume of business done by him during the year.

An office has been established at Winnipeg for handling the business done in the Prairie Provinces, and the company has its own representative on the Toronto market. Agents have been established in practically every town in the Maritime Provinces. These agents are paid on a commission basis and it is their business also to adjust all claims made against the company.

From 30 April to 30 November 1921 the total turnover of the Niagara Peninsular Growers was about \$1,500,000 and it handled forty-nine varieties of fruit and vegetables including 124 carloads of apples, 49 carloads of cherries, 10 carloads of currants, 336 carloads of grapes, 564 carloads of peaches, 119 carloads of pears, 74 carloads of plums, 41 carloads of raspberries, 70 carloads of strawberries, 12 carloads of asparagus, 10 carloads of cabbages, 54 carloads of cantaloupes, 8 carloads of cucumbers, 11 carloads of peppers, and 133 carloads of tomatoes. Of the 119 carloads of pears handled, 25 were exported to Great Britain. The grapes consisted only of those sold in baskets on the Canadian markets. The bulk of the crop which was sold either to local wineries or exported to the United States, was handled by the Niagara District Grape Growers, Ltd. These two companies co-operate in the marketing of each other's fruit.

The Niagara Peninsula Fruit Growers' Association carries on an active advertizing campaign. It aims at telling the consuming public just what fruits may be had. For fifteen weeks during the fruit season well written short bulletins are inserted weekly in 250 papers in the Province. In this way it is estimated that every family that takes in both the city and local paper has two opportunities of seeing the notice. An attempt is made, where possible, to have the bulletin inserted in the local news items, but failing this to have it at any rate placed in a "preferred" position. In no case is the bulletin inserted in the regular advertizing columns.

In the counties of Essex, Kent and Lambton, there are a number of vegetable growers' associations, while associations of apple growers are quite numerous in the leading apple districts. There is also the Co-operative Fruit Growers of Ontario, a united company organized for marketing

the fruit of the locals. About eighteen locals are thus united. During the war activities practically ceased, but steps are now being taken to revive the work. Associations of this character employ a manager to market their output and to purchase containers, spraying materials, seeds and fertilizers. The usual co-operative business methods are employed. In some instances members are paid when the returns come in; in other cases they are paid at the end of the season the amount realized less the cost of handling. The returns are pooled in the case of some of the apple growers' associations.

In many cases the value of the land has increased by 50 per cent. due to the extra time spent on the land by the farmers, who formerly had to employ this time in marketing.

In the spring of 1913, eighteen fruit and vegetable growers in the Leamington district formed the Erie Co-operative Company. They were for two years the only fruit and vegetable company doing business in that district. Then about the same number of growers formed a company under the name of the Leamington and Western Co-operative Company. Still another co-operative company was formed, the Essex Growers. In addition there was one large individual dealer and a number of small dealers. In 1917 the Leamington and Western Co-operative Company amalgamated with the Erie Co-operative Company, whose membership in the meantime had increased to 63. The Erie Company's name was retained. Next the Ruthven Cold Storage Company, with a membership of 27, was bought out. After that the company took in the Kingsville Co-operative Company and opened up a shipping station at Harrow. In the spring of 1920 the Erie Co-operative Company bought out the Essex Growers in Leamington and at the same time opened up a branch near Blenheim in Kent County. In seven years the Erie Co-operative Company increased its membership from 18 to 339, its business from \$25,000 to \$705,000 and the financial standing from a deficit in the early part of the company's existence to a surplus of \$56,000 in 1920. In addition the company has eliminated all competitors except one.

In the County of Middlesex, Ontario, the Caradoc Fruit Growers' Association is a thriving fruit co-operative growers' association. There are thirty-seven members in this association; the manager conducts a general store in the village of Mount Brydges, buys and sells apples and potatoes as a personal business and manages the affairs of the Caradoc Fruit Growers on a commission basis. Until 1921 the manager had full control of the affairs of the Association; he could enrol a new member, or expel one as he thought fit. This system became too one-sided and in 1921 the manager asked that a committee of five members be appointed to deal with all matters of discipline and adjustment and this plan was adopted.

The manager is paid a commission of thirty cents per barrel on the pack of the organization. The manager collects all moneys payable to the Association, makes all payments for it and at the end of the season pays himself and the members. Up to 1920 the members of the Association packed their apples in the orchards, but it was found impossible to

maintain standard grading and in 1921 a packing house was rented from the railway company, where the fruit is graded under the personal supervision of the manager. Each grower's load is inventoried and piled separately in the warehouse, the grower being given a duplicate slip showing the number of boxes of each variety delivered.

Potato growers' associations in Ontario were started about 1914. At the commencement their chief activity was buying loads of seed potatoes to insure uniformity of their members' crops. By this means and by co-operative marketing the associations have obtained about one-third increase in price for their members. There is no co-operative potato marketing association covering the whole province and the formation of such an association was strongly pressed at the sixteenth annual convention of the Ontario Vegetable Growers' Association held at Toronto in February 1921.

The Orangeville Co-operative Marketing Company is an example of a local incorporated co-operative company started for the sale of potatoes. In 1920 there were 9 other locals united to the association. The number of shareholders at that date was 190; shares are \$25 each and the paid up capital is \$8,356. The association pays the street price for produce when delivered to it. Produce is handled for shareholders and non-shareholders, but the profits are only divided amongst the shareholders. In 1919 the profit on non-shareholders' business paid the entire operating expenses of the company. The company owns a frost-proof potato warehouse; in addition the company bought a grain elevator, the primary cause of the purchase being the refusal of the local dealers to handle the company's grain if they could not handle its potatoes. In 1919 the association handled 36,000 bags of potatoes at a profit of \$12,000. They also handled 11,000 bushels of wheat and 31,000 bushels of other grain at a net profit of \$4,000.

Nova Scotia.

The first effort at co-operative fruit marketing in Nova Scotia was made in 1907 when 12 fruit growers living in Berwick formed the Berwick Fruit Company, Ltd., incorporated under the Nova Scotia Joint Stock Company Act. The first year the company handled 7,000 barrels of apples, in 1908 about 15,000 barrels and in 1909 some 22,000 barrels. The success achieved by this society led to the passing of the Farmers' Fruit, Produce and Warehouse Associations Act. Co-operative companies were rapidly organized under this Act, but it soon transpired that the ends of co-operation were being defeated in that each of these companies became a large unit competing against other organized units. Hence the necessity arose for a central company which could unite the business of the local companies, and in 1913 the Act to Further Facilitate the Incorporation of Farmers' Fruit, Produce and Warehouses Associations was passed.

Under this Act the United Fruit Companies of Nova Scotia, Limited, was formed, primarily for the handling of potatoes. It has an authorized

capital of \$50,000, of which \$42,000 has been subscribed. Until 1919 none of the stock subscribed had been called in, the banks giving credit on the subscribed stock and the business being financed on directors' notes from the local companies when they purchase, by discounting open drafts, etc. However in 1919 ten per cent. of the capital stock subscribed was called up.

At the commencement 22 local co-operative companies were affiliated to the central company; in 1919 there were 43 subsidiary companies.

The governing body of the United Fruit Companies is composed of a president, secretary and directors, one director for every affiliated company, each having as many votes at the directors meetings as the local company he represents holds shares in the Central. The directors may appoint a board of management to manage the business affairs of the company. Dividends may be declared from the profit of the company to the shareholders in proportion to the amount paid up on their respective shares, or the profits, at the discretion of the directors, may be used for any business purpose within the powers of the company or to create a reserve fund.

The central company has no warehousing space, but each local company has its apple warehouse and there the apples are stored. The local manager notifies the central what they have in stock. These apples are inspected by the company's inspectors to ensure a uniform and high standard pack. When the central company receives a big order for apples the local companies are notified to have cars ready for shipment on a certain date. The company has representatives at Havana and in London, these being the two chief markets, and also an intelligence system which keeps them informed every day from all the principal markets as to the situation.

A lump price is paid after each sale during the season per variety and grade to the subsidiary companies, and the balance paid at the end of the season. If farmers need the money, however, they can get larger advances on their fruit. In addition to dealing in apples the company handles other fruit and also potatoes and buys supplies for the members of the subsidiary companies. In certain cases the company is able to charge the members less than the price of the materials on account of the profits made by selling to non-members.

During the year 1918-19 the company handled 143,964 barrels of apples and 82,521 barrels of potatoes. The total business of the year including the purchase of supplies amounted to \$1,917,689. The company ended the year with a reserve account of \$27,565 divided into two sections, a potato reserve of \$10,000 and a general reserve of \$17,565. There was a business profit on the year's operations of \$16,619. The financial statement presented at the ninth annual meeting held in June 1921 showed the best record ever made, the total turnover amounting to \$3,292,549 at a cost of 1.1 per cent. During that season the company had been instrumental in chartering 20 steamers for the carriage of fruit, potatoes and fertilizers.

In 1915 the Annapolis Valley associations subscribed 5,000 barrels of apples for the purposes of an advertising campaign carried out by the Nova Scotia Fruit Growers' Association. In addition the Provincial Government gave a cash contribution. An experienced representative

was sent to England to advertize Nova Scotian fruit in the principal cities.

British Columbia.

Co-operation in the fruit and vegetable industries of British Columbia began in 1913, when an amendment to the Agricultural Associations Act was passed whereby duly incorporated associations might secure a government loan amounting to 80 per cent. of the subscribed capital. The main centre of organization was the Okanagan Valley, where eight local associations were formed. The work of these associations was to assemble grade and pack according to standard rules all fruit and vegetables grown by the respective shareholders and otherwise to prepare them for market. At the same time a united selling and buying organization was established under the name of the Okanagan United Growers. This company was formed of the growers who constituted the several local associations, but was registered as a separate concern with a share capital of \$10,000, and a paid up capital of \$28. No further calls have since been made. The first crop handled was that of 1913, and sixty-five per cent. of the crop passed through the Association. The Association now controls the bulk of the Fruit of the Okanagan Valley and is the price-setting factor in British Columbia.

The charge to the growers by the local associations for providing cases and other material and for grading and packing varies according to the size of the package, but in the case of the boxed apples this charge was 42 cents in 1919. To this was added an overhead charge of 6 cents. The Okanagan United Growers' selling charge varies in the same way, but with the box of apples it was 9 $\frac{1}{2}$ cents. Therefore the grower paid 57 $\frac{1}{2}$ cents for having his fruit graded, packed and sold, plus commission, which at \$30 per carload is 4 $\frac{1}{6}$ cents, a total of 61 $\frac{2}{3}$ cents. For financing purposes the selling organization, apart from the direct case-charge referred to, withholds 2 per cent. of all accounts handled. Amounts so deducted bear interest at 5 per cent. and are repayable in five years.

The internal co-operative needs of the province were satisfied, but within the last few years the fruit and vegetable production of British Columbia has far exceeded the provincial consumption and interprovincial and foreign markets were sought. The efforts of the individual local associations in selling to outside markets were unsatisfactory, competition amongst themselves developed and no definite standard, price or grade was maintained. In order, therefore, to control satisfactorily the export trade the associations formed in 1919 the British Columbia Traffic and Credit Association which has proved a great factor in regulating shipping methods and in establishing a standard of fruit to meet all competitors.

The commercial production of small fruits in British Columbia dates back some twenty-five years. During this period many attempts were made in various localities on the Lower Mainland and Vancouver Island

to improve conditions of marketing. Numerous fruit-growers' associations were formed, some of them attempting the sale of their members' produce, others merely existing for the purpose of discussing local conditions and methods of production. Where any attempt was made at marketing, however, such operations were short-lived, the results being far from satisfactory. The causes contributing to these failures were mainly lack of proper inspection as to grade and pack, lack of adequate facilities for handling the fruit previous to shipment and inability of the growers to stand together.

It was not until 1915 that any real success attended the efforts made to market British Columbia small fruits upon the co-operative plan. In that year the Gordon Head Fruit-growers' Association on Vancouver Island was incorporated. By placing field inspectors amongst their members to instruct them as to grade and pack, and by the supervision of the Dominion Fruit Inspectors, who finally passed upon all crates before they were loaded into refrigerator cars, the association got a firm hold on the market with first-class products.

But conditions on the Mainland showed but slight improvement. An attempt was made in the Mission-Hatzic District at co-operative marketing in carloads. A better inspection of fruit was made, but owing to the more humid atmospheric conditions prevailing in that locality, compared with Vancouver Island, it was found that the small fruit sweated during transit, which moisture turned to mould by the time the cars reached their destination. This caused the association to be a failure and individual indiscriminate shipments from that and other mainland districts continued as before.

It was not until 1919 that co-operation amongst the Lower Mainland fruit growers made any decided headway. In the spring of that year some twenty-eight growers of the Dewdney-Hatzic-Mission District formed themselves into a new organization called the Fruit and Mercantile Exchange, Limited, and erected a warehouse with a small freezing and precooling plant. The association had great difficulty in inducing growers to become members. However, its first season was a success and by the end of the season the membership had increased from 28 to 120.

Encouraged by their success, other Mainland districts started to organize and in the spring of 1920 three new associations were formed. At this time also the Fruit and Mercantile Exchange enlarged its premises by means of a \$50,000 issue of debentures guaranteed by the Mission Municipality.

It soon became evident that unless there was co-ordination amongst the associations, shipments from each district would be liable to conflict, and proper distribution could not be accomplished. With this object in view the British Columbia Berry-Growers' Association, Limited, was formed and incorporated in April 1920, membership in this association being restricted to co-operative small-fruit growers' associations of the province. All the Lower Mainland associations became members, and the Gordon Head Fruit-growers' Association also joined.

During the season of 1920 this head association did little more than

act in an advisory capacity to its members. However, in January 1921 the member societies decided that their produce should be sold and distributed through the head association. The British Columbia Berry-Growers' Association now includes in its membership all the associations on the Lower Mainland, the Gordon Head and Cowichan Associations of Vancouver Island, and the Wynndel and Salmon Arm Associations of the Upper Country.

The British Columbia Fruit Growers' Association working in conjunction with the Provincial Department of Agriculture advertizes the fruit and vegetable products of the province in the markets of Alberta and Saskatchewan. Window cards are distributed free to the dealers, bulletins are inserted in the prairie newspapers, and a free booklet of eighty pages giving recipes and methods of canning are sent to all interested. In addition circulars are issued to all retailers every few weeks referring to the fruits in season.

New Brunswick.

The New Brunswick Fruit Growers' Association is primarily a purchasing association and as such is described in a later section. In 1917 it started the co-operative shipment of apples. This work has increased rapidly and a very high standard of pack has been reached and maintained. In 1918 the association obtained incorporation under a special charter of the New Brunswick Legislature. In 1919 it shipped 3,700 barrels of apples to Montreal.

Alberta.

The co-operative marketing of fruit and vegetables has only recently been started in Alberta, the Edmonton Potato Growers, Limited, being the first association to be formed. This association was incorporated in July 1921 under the Alberta Co-operative Associations Act. The membership is limited to producers of potatoes living in the territory tributary to the business office of the association. The shares of the association have a par value of \$25 and a grower on becoming a member is required to purchase at least one, but not more than ten shares, paying in cash 20 per cent. of the par value. No member may have more than one vote. He must also sign a negotiable non-interest-bearing demand note for \$200 which is made out to the order of the association. These notes are used as collateral security with which to borrow funds in financing the various operations in connection with the marketing of the crop. The notes are the property of the association and are available in the settlement of any liquidation damages which may result from the failure of any member to live up to his contract with the association.

The incoming member is further required to enter into a contract with the association respecting the handling and marketing of his crop.

This contract specifies that the grower appoints the association his agent for the purpose of handling and marketing his potatoes and any other farm products he may specify and he binds himself to deliver to the association his entire crop. On or before 1 July of each year the grower must report to the association the acreage to be grown by him that year of potatoes and other farm produce covered by the contract. If other vegetables not covered by the contract are included in the grower's report, it is taken to indicate that it is the grower's intention to include such produce in the contract in the future. During the growing season the grower must furnish any such information concerning his products as may be required by the association. The period of the contract extends indefinitely but provides that a grower wishing to withdraw from the association may cancel his contract at the end of any crop year upon giving thirty days notice. The association has a lien upon the farm produce contracted by the grower to be delivered to the association, for any indebtedness owing by the grower. The contract also includes a penalty clause which provides that if the grower fails or refuses to deliver his crop to the association he shall pay to the association, as liquidated damages, an amount equal to the service charge of the association. In 1921 this charge was \$50 per car, an amount equivalent to approximately 8 cents per bushel. This amount may be deducted from any money in possession of the association due to the offending grower or may be a charge against the grower's note. With regard to outside offers, the contract provides that if a member is offered by some outside concern a price in excess of the price then obtainable by the association, he shall turn over such offer to the association to be filled by it from the said grower's potatoes. This clause is meant to nullify the efforts of opposing concerns in any effort to discredit the association by paying temporarily more than the market will allow.

The marketing scheme includes an arrangement by which sales shall be pooled. The length of the pooling period, the marketing and other details in connection are matters which are left to the board of directors. The contract does not stipulate that the member must accept the pooling arrangement; any grower may have a separate account if he so desires, but the board recommends that members accept the arrangement and enter the pool. The general feeling so far seems to be strongly in favour of the pooling arrangement. Further provision is made that in case the manager at any time should meet with unforeseen difficulties in the marketing, he may authorize the grower to sell on his own initiative.

The directors of the association decided upon a bi-weekly pool for the early crop and a weekly pool for the late crop, the bi-weekly pool period running from July to 15 August and the weekly pool for the remainder of the year. Seed and fancy grades of potatoes are not included in the pool.

By September 1921 the number of members was 47 and the association had established a credit at the bank on its collateral notes of \$9,400. During 1920 the association marketed over 800 carloads of potatoes.

§ 8. THE CO-OPERATIVE SALE OF TOBACCO.

Co operation has also been applied in Canada to the marketing of tobacco. Thus the Yamaska Valley Agricultural Co-operative Association was organized in 1911 by the tobacco growers of the Yamaska Valley, Rouville County, in the Province of Quebec. At the time of organization the number of shareholders was 250; the number is now about 400. The headquarters and warehouses of the association are at St. Cesaire. The association has a subscribed capital of \$42,600 of which \$34,920 has been paid up. In 1913 some 550,000 pounds of tobacco were warehoused and prepared for market. In 1918 the association sold \$136,161 worth of tobacco, and in 1919 it sold \$208,977 worth, making a net profit of \$20,048. For several years the association has paid a dividend of six per cent. The financial statement for 1919 showed a surplus of \$53,956.

§ 9. THE CO-OPERATIVE MARKETING OF SEED.

We give in this section an account of some associations which market guaranteed seed. It will be seen, therefore, that all branches of horticultural farming are being undertaken by co-operative associations. Prominent amongst these is the Quebec Seed Growers' Co-operative Association.

Quebec.

In 1914 there was organized the Quebec Co-operative Society of Seed Producers, with headquarters at Ste. Rosalie Junction. The object of this society is to produce and handle in adequate quantities high class seed for use on Quebec farms. In the organization of the society the Provincial Department of Agriculture was of marked assistance. It bought the land at Ste. Rosalie Junction where a modern warehouse and cleaning plant have been built. In addition some of the money for the building and installation of the machinery was borrowed from the Provincial Government without interest for a term of three years. This money is to be paid back as the business of the society develops. The building cost \$15,000 and the machinery \$5,000. The salary of the manager and his assistants is paid by the Provincial Department of Agriculture. The services of these assistants are available for other provincial work during the slack season of the year. On the other hand a good deal of assistance is rendered to the society by provincial district agricultural representatives or "demonstrators" during the summer in inspecting crops of seed grown by farmers for the society.

The regulations of the society require that it shall be composed entirely of farmers or agricultural co-operative associations, all of whom must be stock holders. Farmers are required to own at least ten shares of \$10 each. Those preferring to do so may pay for their stock in full; others must pay at least \$10 per year until the full value of the stock be paid up.

Co-operative associations have only one share each but enjoy all the privileges of individual members except the right to vote. The operations of the society are controlled by a board of five directors elected amongst the members.

Should a profit of more than 6% be realized by the Society during any one year the surplus is to be placed in a reserve fund until this fund attains a certain figure; the directors are then authorized to determine what shall be done with the balance.

The aim of the society is ultimately to handle registered and first class seed and to be the chief distributing station in the province. It purchases as much of the registered seed produced in the province as possible and imports from other provinces if necessary. Registered seed is supplied to farmers for propagation for the society. Before 1917 no definite contract had been entered into between the society and the growers for the production of seed at a given price. Growers supplied with registered seed for propagation are encouraged to become members of the Canadian Seed Growers' Association and to follow its methods of seed growing in order that the seed produced may be accepted for registration if up to standard. The above association and the society are working in close conjunction. In 1918 the membership of the society was 758 comprising 667 regular members, 57 farmers' clubs and 34 agricultural co-operative associations. Its subscribed capital was \$67,490 and its paid-up capital \$25,981. The total transactions during 1919 amounted to \$159,453. The company's assets stand at about \$53,000.

In the Thirteenth Annual Report of the Canadian Seed Growers' Association, for the year ending 31 March 1917, the following comment with regard to the Quebec Co-operative Society of Seed Producers is made: "The organization may possibly be open to certain criticism on account of the amount of financial aid extended by the Government. If there existed private concerns which are disposed to carry on their business with the same amount of care as that exercised by the Co-operative Society, there might be justification for criticism. In view of the fact, however, that sufficient seed of the proper quality and breeding was not being made available in Quebec for the need of her farmers, the action taken appears to be warranted".

Ontario.

In the summer of 1913 the Grand River Alfalfa Seed Centre was organized at York, Ontario. The main object of the centre is to encourage the production of hardier strains of alfalfa seed among its members and by means of co-operation to market them to the best advantage. In order to secure the hardiest strain a bushel of Grimm's seed was sown about 1 July 1915. Six acres of this seed made a good start and in 1915 the centre sold 63 bushels and 33 pounds of seed. This seed tested No. 1 with the exception of a few bushels which tested No. 2. The No. 2, however, was No. 1 in purity, but was marked down on account of general quality.

The average price for this seed was \$20 per bushel. In 1919 the centre had about 80 bushels of seed for sale.

The Kenora District Co-operative Clover Seed Growers' Association, Limited, Oxdrift, Ontario, was organized in 1917. During the first season it handled seed to the amount of \$15,000. Proceeds from these sales after paying all operating expenses, interest, new equipment, yearly payment on property, etc., showed a net profit of \$498.

An Act passed by the Ontario legislature in 1919 provided for loans by the Government to co-operative associations within the province for the purpose of cleaning, storing and marketing grain, grass and clover seeds, and potatoes. The Co-operation and Markets Branch is charged with taking care of this service on behalf of the Department of Agriculture. An association may borrow up to \$3,000, which must not exceed fifty per cent. of the appraised value of the property on which the loan is made. No interest is payable on the loan for two years, after which the rate of interest is 6 % with provision for repayment within ten years. The purpose of the loan is to encourage the production and use of improved seed. Loans may be utilized not only for seed cleaning plants and potato warehouses, but also for cleaning and grading machinery. The Co-operation and Markets Branch is prepared to make recommendations with respect to the plants that should be constructed and equipped for the purposes to be served by this provision.

In 1920 a group of farmers in the Rainy River District received a charter for the Rainy River Co-operative Seed Growers' Company, Limited. This company was formed primarily for the purpose of installing a re-cleaning plant for the cleaning and grading of clover seed. The company contemplated, however, the handling of all classes of seed including grains and potatoes. The company is formed on a capital share basis. It has an authorized capital of \$5,000 divided into 200 shares of \$25 each. Shareholders are required to pay one-half of the amount of the subscription when purchasing the stock and the balance at the call of the directors.

Saskatchewan.

Since the Saskatchewan Co-operative Organization Branch was first organized it has been advocating the co-operative growing of potatoes. A start in this direction was made in 1919 by the Earl Grey Grain Growers' Association, Ltd. This organization purchased a car of "Irish Cobbler" seed potatoes through the Branch and proposed to produce certified seed. Between forty and fifty farmers participated in the movement. A representative of the Horticultural Division of the Dominion Department of Agriculture inspects the crop at blossoming time and when the tubers are dug they are again inspected and if the crop is found true to type and free from disease certificates guaranteeing its purity are issued.

British Columbia.

In 1919 the United Seed Growers' Co-operative Organization of British Columbia, was formed under the Co-operative Associations Act of the province. Its headquarters and its storage warehouse are at Penticton. It is formed primarily for marketing co-operatively the seed of its members.

Prince Edward Island.

The Prince Edward Island Potato Growers' Association obtained incorporation in 1921. The association concentrates on the co-operative marketing of seed potatoes. In the spring of 1921 the association marketed 2,777 bushels, having a turn-over of \$2,013. The total quantity of potatoes marketed in 1921 was 45,000 bushels or practically 60 carloads. The association advanced \$1 a bushel and final settlement was made at the end of the year. The delay, however, was due to railway overcharges. The association retained 5 per cent. of the net sales for handling charges. The major part of the crop was exported to the United States.

§ 10. THE CO-OPERATIVE PRESERVING OF FRUITS.

Quebec.

In the district of Quebec, which produces plums, a co-operative society was formed in 1914 for the sale and canning of this fruit. This society has been the means of turning to good account fruit that in seasons of heavy crops would have gone to waste.

Ontario.

In 1917 the Ontario Department of Agriculture was instrumental in equipping a small Community Canning Centre at Parkhill in which some thousands of pounds of fruit and vegetables and also chicken were canned and sent to the Canadian Forces during the War. This centre was very successful and resulted in the formation of seven other centres established in the province, among them being one at Barrie and one at Niagara-on-the-Lake. During August 1918 the co-operative factory at Barrie handled 7,500 pounds of raspberries, blueberries, beans, peas, rhubarb, jam, etc. In September 1918 the centre at Niagara-on-the-Lake was opened. From 1 September to 31 October the centre canned 1,800 quarts of tomatoes; 2,100 quarts of peaches; 2,000 quarts of plums; 1,700 quarts of pears; in addition there were made 8,000 pounds of peach jam; 500 pounds of vegetable marrow jam and some hundreds of gallons of tomato soup.

With the cessation of hostilities all the canning centres were disbanded with the exception of that at Parkhill. The centre is now run as a co-operative community centre. Some fruit producers pay for the canning of their fruit; others do it themselves and give so many cans to the centre as payment for

the facilities offered. Some of the farmers in the district now grow an extra acre or so of corn or peas and sell to the factory at a small advance on cost. The price of a can of peas made by the factory was about 10 cents, whereas the ordinary retail price was 22 cents. At the end of 1919, the first year of operation on the new lines, the factory had a net surplus in hand of about \$600.

British Columbia.

Early in 1921 the farmers of Errington, British Columbia, started a co-operative jam factory. During the season of that year they manufactured nearly two tons of jam made from local fruit and sugar. The object of the association is to establish fruit growing in the district, the factory to provide a market within easy reach. The jams are packed for sale in cases containing twelve four-pound tins.

§ II. THE CO-OPERATIVE PURCHASE OF AGRICULTURAL REQUISITES.

The co-operative purchase of farmers' requisites is undertaken by very many co-operative agricultural associations in Canada. In many cases the same society undertakes both co-operative buying and co-operative selling. The special class of requisites which a society buys depends on the type of association. Thus grain growers' associations purchase agricultural machinery, binder twine, etc.; poultry-keepers' associations purchase wire-netting, poultry feeds, etc., and fruit growers' associations purchase barrels, baskets, etc. We here give an account of some typical purchasing associations in the different provinces and of the purchasing departments of some of the marketing associations.

Interprovincial Associations.

The United Grain Growers, Limited. — The Farm Machinery and Supplies Department of the United Grain Growers, Limited, handles practically everything necessary to the farmer. The Report for 1919-20 stated that the department showed a loss of \$52,069 as compared with \$59,426 in 1918-19. The turnover showed an increase of \$728,537, the gross revenue an increase of \$63,344 and the net revenue after deducting discounts and commissions an increase of \$6,001. Operating expenses decreased \$18,350 while fixed expenses increased \$16,995, making a net decrease of \$1,355. Discounts and commissions allowed showed a large increase but this was due to the fact that in the previous year many sales were entered at net amount. The turnover in flour and feed, coal, binder twine, wire and bale ties, salt and miscellaneous showed an increase of \$915,754, coal and binder twine accounting for \$875,446 of this amount, while hay, posts and fruit showed a decrease amounting to \$276,809. A net increase was shown, therefore, of \$638,945. The decrease in the handling of hay was due to the activities of the Provincial Government of Alberta in supplying hay to farmers, while the decrease in fruit, which was mainly apples, was the result of fewer orders being received on account of the increase in price and the more conservative policy in

ordering fruit on account of the difficulty in securing early shipment, often through lack of cars and the resulting risk from frost and damage.

The Lumber and Builders' Supplies Department has been completely re-organized. With the decreased demand for lumber it was found impossible to maintain the service which was being given by this department in preparing plans and specifications without incurring a heavy loss. Consequently the department has been linked up with the supply department and a minimum staff only retained. This staff is employed at other work when orders are not available.

Machinery and repair parts showed an increased turnover of \$136,435. The total sales of farm machinery, road grading machinery, supplies, lumber and builders' supplies, amounted to \$6,908,896. In 1919 the board of directors decided to develop the farm machinery and supply business on an agency basis. During the year 1919-1920, twenty-three agencies were established in Alberta, twenty-eight in Saskatchewan and six in Manitoba; also twenty-four agents were appointed who work on the same basis as those carrying the association's regular agency contracts, but do not carry stocks and consequently receive a smaller commission. With regard to repairs the United Grain Growers, Limited, is securing the ownership or control of as many patterns as possible of the machinery which it handles, so that if the manufacture of this machinery should be discontinued the possession of the patterns would enable the association to make arrangements for the spare parts to be manufactured for it by some other concern.

Canadian Co-operative Wool Growers, Limited. — The Canadian Co-operative Wool Growers, Limited, purchase chiefly stockmen's supplies, such as sacks and twine. These lines are resold to the members on as narrow a margin as possible. It is stated that whilst profits are shown in connection with the handling of these goods, the overhead, office, warehouse and printing expenses are charged to the various general ledger accounts under which they come. The turnover of the Company in this branch of business in 1918 was \$3,623, in 1919, \$14,191 and in 1920 \$29,815. In 1920 the orders totalled 3,200 as compared with 1,100 orders in 1919. The chief advantage is found to be that these lines enable the company to keep its staff intact throughout the year."

Prince Edward Island.

The purchasing of agricultural requirements has developed rapidly of late years in Prince Edward Island. Though primarily a marketing association the Prince Edward Island Co-operative Egg and Poultry Association, Limited, takes an active part in this branch of co-operation.

The Canadian Farm Products, Incorporated, was organized for business in 1918, with head office at Charlottetown and branches at other points. The company has a Dominion charter. The company has no capital but has the power to accumulate and create a capital fund equal to the cost price of the total real estate, property and equipment of the company. This capital fund is apportioned among the branches in proportion to the

amount of business done through the corporation during the year in which the fund was raised. A certificate is issued to each shareholder guaranteeing that his *pro rata* share of the capital fund shall be returned to him in cash on a date specified on the certificate. This repayment is not made until the fund for the year following is collected, and the business of the year for which the former fund was operative has been concluded.

Another society, the Farmers' Union Co-operative Society, Limited, of Wellington, besides selling farm produce, purchases supplies and operates a retail store in Wellington. The society was organized in 1916 and in 1919 had 110 members. The shares are \$10. Each member may only have one vote no matter how many shares he may hold. The profits are divided as a patronage dividend.

Nova Scotia.

During the year 1918-1919 the supply department of the United Fruit Companies of Nova Scotia, Limited, purchased 2,053 tons of high grade fertilizers and 1,410 tons of basig slag; it also bought 4,560 barrels of flour and 75,778 bags of mill feed, about 171 carloads in all. The association also handled 582 bags of grass seed, 3,078 bushels of feed oats, 1,476 bushels of field seeds and 1,275 pounds of garden seeds.

The Inverness Farming Co-operative Society was formed in 1917 for the purchasing of farm requirements. The first move was to buy \$3,000 worth of fertilizer and seed. The society has no paid up capital and raised the money at the bank, and the drafts were paid as drawn on the society. With the fertilizer it was found necessary to give the members four months, with joint notes payable to the society and bearing interest, which balanced the interest on the principal. On the specified date every dollar was paid in and the society sold its goods at much reduced prices compared with those which the local dealers were asking.

New Brunswick.

The New Brunswick Fruit Growers' Association was formed in 1905 with a membership of 34 as a co-operative supply association, buying for its members spraying materials, barrel presser, boxes, crates, nursery stock, etc. In 1919 the Association was incorporated under a special charter of the New Brunswick Legislature. In 1921 the membership was 180. The Association receives an annual grant of \$200 from the Provincial Department of Agriculture.

The growth of the supply business of the Association is indicated in Table XV (page 603), which shows the value of requisites purchased in each year from 1912 to 1921.

The larger value of the supplies purchased in 1920 is due to the fact that the entire barrel supply for the members was handled through the Association.

The New Brunswick Agricultural Societies United, incorporated in

TABLE XV — *Value of Nursery Stock and Supplies handled by the New Brunswick Fruit Growers' Association, 1912 to 1921.*

Year	Value of nursery Stock	Value of supplies	Year	Value of nursery stock	Value of supplies
1912	1,820	515	1917	—	2,522
1913	3,000	625	1918	—	3,000
1914	1,854	675	1919	—	4,000
1915	—	825	1920	1,341	14,615
1916	—	800	1921	1,601	8,641

1914, purchases fertilizers for agricultural societies. It is purely a buying organization and is not capitalized. However each affiliated society pays an annual membership fee of \$5. The purchasing committee desire that every member of an agricultural society requiring fertilizer should place his order with the secretary of his society before 1 December in order that the purchasing committee may know the exact amount to order. Otherwise if guess work has to be used and a surplus is bought the "United" may have to stand a loss in order to live up to the terms of the contract, it follows that as the "United" is not a capitalized association this loss has to be passed on to the individual purchasers. If on the other hand the committee purchases less than the final orders require, the purchase of a small lot to make up the balance may have to be made at a higher price and again the individual purchaser suffers.

The United Farmers' Co-operative Company of New Brunswick, Limited, started business late in 1917. It has an authorized capital of \$299,000, divided into shares of \$25 each. Up to the end of 1920, \$268,000 had been subscribed. No limit is placed upon the number of shares to be held by a shareholder, but he can have only one vote. The transfer of shares is subject to the approval of the central executive. Fifty per cent. of the share value must be paid upon subscription; of this amount \$2.50 goes to the funds of the central company and the remaining \$10 into the stock account of the branch with whom the member is associated. For those who live where no branch is established the full fifty per cent. of the stock is paid into the stock account of the association. Interest on stock is limited to 7 per cent.

The membership of the company is over 4,500. The company operates twenty-three stores in the Province and has a turnover exceeding \$100,000 a week.

The company is managed a Board of Directors, consisting of one director for each local company, nominated by the local and approved at the annual meeting. After election the new board appoints its officers and executive committee. Central management and local responsibility are

provided for by the election of an advisory board by the shareholders of a local branch. This board confers with the executive committee and the general manager of the company in respect to the affairs of the branch. The local has the power to recommend its manager; his salary is agreed upon by the general manager and the local board and he is considered to be the employee of the Central.

An account is opened by the Central for each branch at a local bank, and deposits of money received from sales are made regularly. As all accounts are in the name of the Central, a member of each local branch is authorized by the Central to withdraw money for current expenses, endorse cheques for deposit and accept bills of exchange drawn by the head office on the branch. The business of the locals are on a strictly cash basis except with the special authority of the Central. All goods are bought in the name of the company and are its property. The local boards and local managers have no authority, except when it is specially given, to pledge the credit of the company when making purchases. The company has instituted a strict and uniform method of accounting. Each branch manager is supplied with a book-keeper. Uniform sets of books, supplied at cost by the company are sent to all branches. Reports of all sales are sent to the Central offices at the end of each month, or oftener, on forms supplied for the purpose. An auditor employed by the Central visits each branch periodically, usually once a month, and examines its affairs. The Central has the right to make a complete examination of a branch's affairs at any time if conditions seem to warrant it. At the end of each year a complete stock-taking is made in all branches. As stated before, most of the goods are ordered through the company, which acts in the capacity of wholesaler and consolidates the purchases of the branches. Besides each member's purchasing account, kept at the branches and recorded at the Central, each branch has a merchandizing account in which its total purchases through the company are entered, together with the profit made by the company and the share of the expenses incurred by it on the business of that branch.

After all charges and the reserve fund have been provided for the net profit is distributed to the branches according to the profits made by each branch and thence to the members according to the purchases made. It is now suggested to provide working capital by retaining a part of the profits for a period of one or more years. Instead of distributing the patronage dividend all in cash, part of it would be in the form of stock certificates, redeemable in cash when mature and bearing a stated rate of interest.

The usual retail prices are charged at the branch stores. Each member of the company, upon joining, is given an identification card, which is valid only at his own local branch. He also signs an agreement that he will not purchase goods for persons outside his own household. The penalty for violation of this agreement is loss of the patronage dividend.

The formation of new branches is supervised by the central company. Upon receipt of an application for the formation of a new branch the site

and locality are surveyed and a guarantee that at least \$8,000 of stock will be subscribed is obtained.

The company has recently started to sell the farm produce of its members; butter, eggs, hay in large amounts, potatoes, vegetables, oats, poultry, etc., are dealt in. There is a special manager for this branch of the company's activities as well as a special committee at each local store. Where there is no branch store the shareholders can form themselves into a group and take advantage of the company's facilities for marketing.

Quebec.

Most of the agricultural co-operative purchasing associations in Quebec have been formed since 1914. In 1915 they began to unite in district federations and in 1916 some of the associations formed a provincial body under the name of the Confederation of Quebec Agricultural Co-operative Associations, with headquarters at St. Hyacinthe. In 1918 the membership of the Confederation was 92, including 83 agricultural co-operative associations. It has a subscribed capital of \$920, of which \$149 is paid up. In 1918 its turnover was \$87,007 and in 1919 it was \$73,627. The supplies chiefly purchased are cattle feed, seeds, coal, binder twine, insecticides and agricultural machinery. The federated associations do all their purchasing on a cash basis and they never keep goods in stock. The amount of paid up capital of most of these associations is not large. The shares are \$10 each and each member has but one share. However the associations make arrangements with the bank to procure the money necessary to cover the delay that may occur between the arrival of goods ordered and the payment by the individual members. The secretaries of the associations are paid by commission but may be given a bonus at the end of the year, as judged proportionate by the general assembly of the association to the benefits received by association. The percentage to be levied on transactions for the payment of expenses is decided by the executive of each individual society which is always composed of five members. The percentage averages about 2 per cent. The average membership of the local associations is one hundred. The Confederation of Quebec Agricultural Co-operative Associations serves as a centre for its affiliated associations for all purposes and holds a general meeting every month. To make sure that farmers will always be in the majority the regulations of the Confederation stipulate that only one private individual may be admitted as a member against two associations. The Confederation's operations have, however, been suspended.

Besides the 91 associations forming the Confederation there were in 1919 about 150 similar associations either acting individually or in various groups.

The Comptoir Coopératif de Montréal was formed in 1913. It has over two thousand members including over 230 co-operative societies and 700 farmers' clubs. Its chief purchases are fattening feeds, chemical fertilizers, insect and fungus destroyers, grain, seeds and seed grain, binder-

twine, wire fencing, etc. In 1918 the Comptoir Coopératif de Montréal had a turnover of \$500,000. The Association operates as much as possible on a cash basis with regard to payment by the members for their purchases.

The largest local co-operative purchasing association in Quebec is the Notre Dame de Ham Co-operative Association, formed in 1914. It has a subscribed capital of \$10,000 of which \$6,000 is paid up. A credit of \$20,000 has been opened in its favour by the local branch of the Banque d'Hochelaga. In 1919 the turnover of this association was \$166,922 and its net profit \$3,605.

Ontario.

There were, in 1919, between 400 and 600 farmers' clubs in the province of Ontario, a considerable proportion of which were purchasing agricultural requirements. Most of these clubs were unincorporated but were then becoming incorporated in increasing numbers. There were very few organizations formed principally for the co-operative purchasing of supplies. An incorporated organization is usually financed either by means of share capital or on the capital note system, each member giving a demand note to be used as collateral. The unincorporated clubs, or organizations, raise capital either by means of individual capital notes of the members, a joint and several note of the members or a joint and several note of the officers of the club. In some instances members are required to pay cash with their order, but generally the goods are paid for by the member in cash at the unloading point. In all cases the clubs keep their business on as strict a cash basis as possible. An illustration of the method by which some few clubs operate through the local dealers is the following: the clubs combine their total orders for a certain requisite and ask for tenders on the bulk order. The local merchant who receives the order fills the individual orders at his own store and takes payment in cash. This method relieves the club secretary of the necessity for detailed book keeping.

In handling supplies many of the clubs paid no attention to the retail market prices but purchased at wholesale prices and sold to their members at cost price plus a small commission to cover handling cost. However, as this resulted in price-cutting on the local dealers and as the margin judged was sometimes too small, more and more clubs adopted the practice of selling at retail prices and dividing the profits amongst the members. A number of clubs also purchased shelf goods, *i. e.* the small articles usually handled by general store-keepers. Because of the small expense involved in this type of business the clubs were able again to undercut local retail prices and authorities in such matters were counselling such clubs to eliminate this class of business until such time as they were in a position to establish stores of their own.

The Brant Farmers' Co-operative Society, Limited, was organized in 1917. It is chiefly a purchasing society, although the marketing of farm products is being strongly developed. The society handles flour and feeds, grains, hay and straw, cereals, seed, fencing, roofing, binder twine,

groceries, hardware, oils, cement, tiles, general farm and garden supplies and poultry supplies. The following table gives data concerning this society for the years 1917 to 1920.

TABLE XVI — *Statistics of the Brant Farmers' Co-operative Society, Limited, 1917 to 1920*

Year	Member ship.	Share capital	Value of stock in trade	Other assets	Reserve fund	Sales for the year (1)	Interest on capital stock	Net profit
		\$	\$	\$	\$	\$	%	\$
1917.	211	4,815	2,500	—	—	12,167	—	—
1918.	207	4,835	6,398	1,758	250	38,105	6	1,174
1919.	237	13,550	9,753	2,414	400	60,886	6	937
1920.	298	11,380	9,776	77,243	1,000	132,876	6	616

(1) Sales for the year include produce marketed

The Lambton County Co-operative Association sells farm supplies as well as purchases agricultural requisites. It was formed in 1917 and after eight and one-half months' business had turned over \$20,000 in purchasing supplies out of a total turnover of \$100,000. The organization is county-wide. Membership is only granted to farmers. On becoming a member the farmer signs a credit note for \$25 which is deposited with the bank as security for loans. No cash fees or dues are required of members. Any five or more members with the sanction of the central board may organize a local club. The locals elect representatives to the county board and the county board organizes the central board whose business is the general management of the association's affairs. The central office negotiates for supplies and reports periodically to the secretaries of the local organizations who in turn inform the members and then send the bulk orders back to the central. The association supplies in carloads feeds, fertilizers, salt, coal, sugar, flour, cement, fencing, fence posts, binder twine, potatoes, and fish. Orders which are less than carloads lots are unloaded direct to the members of the various clubs.

The Leeds Farmers' Co-operative Company, Limited, purchases agricultural supplies for its affiliated local associations. It is capitalized at \$50,000 divided into four hundred shares of \$25 each. The shares are paid for by instalments of \$5 per year. When it is necessary to obtain money for a short period the executive offer a joint note. The executive usually buys f. o. b. with a draft attached to the bill of lading. Each local has an agent who canvasses the members to ascertain their requirements. The agent then sends the orders obtained to the sales manager of the central. The company was formed in 1917 and bought in that year clover and timothy seed, feed corn, oats, mill feed, bran, middlings, oil cake, flour and poultry to the extent of \$53,573. A commission of 2 per cent. was charged to cover handling costs and this left a small balance which was added.

to the general accounts. In the next year the company extended their business to include the buying of coal, fencing, binder twine and other lines as considered beneficial.

The Hawtrey Farmers' Club, Otterville, was formed in 1917 primarily for the purpose of buying supplies, mostly feeds, in carloads because the nearest mill would only supply 500 pounds of shorts at a time. In addition the Club also purchased in its first year some seed. The Club has arranged a credit with the local bank by giving a note for one year to use as security in releasing cars shipped to it. Each member is required to pay for his goods at the time of delivery so that the account at the bank is cleared in a few days. The method of securing orders is chiefly by telephone, though some of the orders are taken at the periodical meetings. When the orders approach a carload the Club generally purchases and the balance is usually spoken for in the time between order and delivery. When the car arrives the members are all asked to unload at the same time and a man is hired to look after the unloading on that day. During the first year of working the Club ordered between \$4,000 and \$4,500 of feed and seeds. The Club found that to give its members proper service it should have regular shipments ordered considerably in advance of requirements and that this would require a small storehouse for the balance of the carloads not sold at the time of delivery; this storehouse could be opened once a week at small expense. At the end of the first year the Club began to co-operate with other clubs in the neighbourhood in making up carload orders.

The United Farmers' Co-operative Company of Ontario acts as the central supply agency for a number of local agricultural associations or clubs. The members of a local meet periodically to place their orders with their secretary. The secretary then sends the total order to the central. The goods ordered are shipped by the central to the secretary of the association c. o. d. The local generally has a bank credit established by collateral note or other security, on which its president and secretary can draw as required. The locals are at liberty to decide whether they will deliver the goods to their members at the retail price and divide the profits, or adopt the cost price system, however, the former system is urged by the central. The goods are distributed by the secretary or manager of the local association from the car, or from the local association's storehouse. No canvassing for orders is done either by the central or any local.

The first co-operative purchasing of supplies undertaken by the United Farmers' Co-operative Company of Ontario was the buying of binder twine. The results were satisfactory, as a saving of several cents per pound to the shareholders was effected. The wholesale purchasing of car loads of supplies which are not carried in stock is handled by the commission branch of the company. The branch deals in flour and feed, groceries, coal, roofing, fencing, stoves, gas engines, etc. The commission charged is a very narrow one, ranging from about 1 to 1 1/2 %.

In 1919 the Company acquired control of the General Wholesalers, Limited, consisting of a number of co-operative retail stores. These now number about 30. Before a store can be opened, enough capital to cover

the cost of the stock to be carried must be sold in the proposed locality. The entire system of stores is supervised from the Central, the stock is sent out from it already marked with the selling price. Rents, wages and running expenses are all paid by the Central. All business done is on a cash basis. At the end of the year the net profit is distributed to the shareholders as patronage dividend. No profit is returned to non-shareholders. In 1920 the profit made amounted to \$6,559. In 1921, however, the company lost \$77,004.

Saskatchewan

The co-operative purchasing of farm supplies in Saskatchewan is carried on by agricultural co-operative trading associations, the local grain growers' associations and by the Saskatchewan Grain Growers' Association. The bulk of the purchasing is done on a cash basis. The grain growers' associations chiefly utilize the agent of the local elevator as their secretary for the purchasing of supplies. If an association is unincorporated, a common practice is for each farmer to sign a demand note for a given amount and the bank will hold these for financing the purchases. Incorporated associations, having capital, arrange for credit at the local bank. Most of the work of soliciting orders is done at the meetings of the members, or by letters, but in many districts practically every member has a telephone and it is easy for the local secretary to take orders by this means. The growth of this form of co-operation is shown in the following table:

TABLE XV — *The Co-operative Purchasing of Supplies in Saskatchewan in 1914 and 1919.*

	1914	1919
Number of associations	102	404
Number of shareholders	2,850	18,240
Value of supplies handled	\$ 239,320	\$ 4,215,000

The associations handle chiefly flour, feed, coal, binder twine, building materials and other commodities that can be handled in bulk.

It is found by the associations that through the co-operative purchase of requirements they have added at least five per cent. to the purchasing value of their money. On twine, lumber and various building materials they have saved from ten to thirty per cent. A very valuable outcome of co-operative purchasing has been the elimination of buying on credit. Dealers used to encourage the farmers to buy on credit and to make payments after the season's crop was harvested, and this buying resulted in purchases being made to the limit of anticipated crop possibilities, often with disastrous results. Cash payment is now encouraged, with the result that the value of the season's crop is not spent before the crop is harvested.

Alberta.

The supply purchasing department of the Alberta Farmers' Co-operative Elevator Company handled during the twelve months ending 31 August 1917 a total of 2,691 carloads of supplies as compared with 998 cars in 1916; in addition a considerable amount of goods was handled in less than carload lots. The total turnover in 1917 was \$1,519,984. The total of 2,691 carloads handled was made up as follows: 91 carloads of binder twine; 68 $\frac{1}{2}$ carloads of barbed wire; 6 $\frac{1}{2}$ carloads of fencing and gates; 1 carload of bale ties; 36 carloads of salt; 151 carloads of flour and feed; 304 carloads of posts and poles; 11 carloads of cordwood; 169 carloads of hay; 320 carloads of lumber; 1,519 carloads of coal and 14 carloads of fruit.

British Columbia.

Farmers' institutes in British Columbia do a considerable amount of co-operative purchasing of agricultural requisites. They distribute the goods to the members at cost price and not on a deferred patronage basis. Organizations without share capital do their business on a strict cash basis. The farmers inform their secretaries as to their requirements and pay cash with their orders. The incorporated associations with share capital, chiefly creameries and fruit growers' associations, also purchase supplies in considerable quantities. The method by which the business is transacted is similar to that followed by the farmers' institutes, and as a rule all business is done in cash. In some instances, however, accommodation is afforded by the banks.

The Robson Farmers' Institute is a case in point. This institute, in 1913, bought feed and flour in mixed cars and has continued to do so ever since. The accounts for purchases are kept separate from the institute's regular funds. A carload or so is ordered about every eight weeks. The system employed is to secure prices from the milling interests and to send these to each member with a form to be filled in with what they require. On the arrival of the goods the members are notified to come to collect what they have ordered. If more is secured than was ordered by members it is taken to a warehouse and stored. Three per cent. is added to the invoice price; of this charge two per cent. is paid to the secretary for his work and the remaining one per cent. covers any incidental losses. To finance the transaction most of the cash is collected before the arrival of the car. If purchasers are unable to pay for the goods when they arrive, sufficient money is procured from the bank to meet the obligation, the member paying the interest on the loan until the money is repaid. In 1918 nine carloads of feed costing \$11,000 were purchased. These purchases included a certain amount of hay and straw for which a charge of only two per cent. was made.

W. E. H. L.

MISCELLANEOUS INFORMATION RELATING TO CO-OPERATION AND ASSOCIATION.

AUSTRIA.

THE SUPPLY OF WORKING CAPITAL THROUGH THE MEDIUM OF CO-OPERATIVE SOCIETIES IN LOWER AUSTRIA.

The agricultural societies of Lower Austria have shown a very satisfactory development since the war. The co-operative warehousing societies in particular, whose number and total business have immensely increased, are of steadily growing importance, not only as selling depots but also even more so as purchasing mediums among the associated farmers. Thanks to the splendid organization of the co-operative warehousing societies, leading up to the Central Federation of Vienna, these bodies, with buildings put up for the most part in peace-time with every suitable fitting, are in a position to supply their members with goods of every kind, especially fodder maize, artificial manures, coal, even textiles, shoes, machines, seeds, etc., of good quality and at comparatively favourable prices. (The more recent warehousing business is carried on sometimes in buildings given up by the military administration, or in ordinary sheds or even in wooden booths. The enormous rise in the price of all building materials prevents the putting up of suitable accommodation).

It is clear that the co-operative warehousing societies, with this constantly increasing business, require considerable capital, the more so that they often have to pay in advance for their purchases of goods, while for the most part they accept payment from their members on receipt of goods, and often in instalments. They used to obtain capital from the Central Co-operative Bank of Vienna (*Genossenschaftszentralkassa*) which on the one hand administers the surplus funds of all the co-operative agricultural societies and on the other makes advances against adequate guarantees.

Up to 1921 the Central Bank could meet all demands, since there were always at its disposal sufficient surplus funds from the 552 Raiffeisen societies. The deposits of these latter, however, in consequence of the scarcity of money, accumulated only very slowly. In the meantime the co-operative dairies, which during the war had been obliged practically to suspend operations, began to sell milk to a larger extent and put forward their own demands on the Central Bank. The Bank was, naturally, no longer in a position to meet the situation from its own resources, and was thus obliged to apply to the large banks for capital. These met the demands on them grudgingly, as business of the kind was new to them and their ordinary operations were not adapted to it; accordingly relations were entered into with the Peasants' Bank (*Bauernbank*), opened

in 1920 with a share capital of 12 million kronen which soon reached 100 millions and in May 1922 amounted to 200 million kronen.

The collaboration between the Peasants' Bank and the Central Co-operative Bank gradually became closer; certain difficulties however arose. In effect the Peasants' Bank, whose board of managers consisted of almost the identical persons who directed the Central Bank, frequently assumed with its new branches the appearance of a rival and misunderstandings of all kinds came about.

Accordingly in the general meeting of the Central Co-operative Agricultural Bank held 20 April 1922, it was resolved to transfer to the Peasants' Bank the financial machinery of the Central Bank. This decision affected 552 Raiffeisen societies and 296 other co-operative societies, having a total of 90,000 members, and a total business of 21,000,000,000 kronen in round numbers (with a total of deposits of nearly 1,000,000,000 kronen).

The Central Bank will continue to exist even after the transfer of the financial functions and will conduct the audit of the affiliated societies required by the law. The Peasants Bank will undertake part of the expenses incidental on the audit.

An official of the Bank will exercise oversight over the operations of the Peasants' Bank, with a view to safeguarding the interests of the co-operative societies (1).

From every point of view this joining of forces between co-operative and banking institutions is a successful way out of the difficulties brought about by the scarcity of money. But it may be doubted if in the long run it will not be prejudicial to co-operation, and if the credit needs of individual agriculturists can be continuously met by a bank instituted with a view to profit.

Another attempt to solve the difficulties caused by the deficiency of capital has been made by the Federation of the agricultural co-operative societies of Graz, where for all transactions between the affiliated societies a clearing house has been introduced, intended to make possible the discharge of obligations without actual cash payments, and a special banking department instituted with the object of arranging exchanges without money passing between the members of the society and third parties who may have an account of some kind at a bank. The Federation which embraces 265 Raiffeisen societies and 140 other co-operative societies had at its disposal on 1 January 1914 8,338,100 kronen and on 1 January 1922 280,000,000 of kronen; it issues its own cheque books, and carries on in an efficient manner simplified banking transactions (2).

This method, if it does not immediately bring about the requisite cash payments, certainly seems the best in the interests of agricultural co-operation.

HERMANN KALLBRUNNER.

(1) *Genossenschaftsblatt für Niederösterreich*, Year III, Part 10, 15 May 1922.

(2) ANLEITUNG ZUR EINFÜHRUNG DES BARGELDLOSEN ZAHLUNGSVERKEHRES BEI DEN VORSCHUSSKASSENVEREINEN IN STEIERMARK. Publication of the "Verband landwirtschaftlicher Genossenschaften in Steiermark." Graz, 1922.

CANADA.

COMMUNITY LIVESTOCK BREEDING CLUBS - RAYNER (I. E.): A Community Breeding Centre, in the *Grass Growers' Guide*, Vol. XV, No 9. Winnipeg, 1 March 1922.

In order to improve the quality of farm livestock the Creelman Agricultural Society formed, at the end of 1920, two community livestock breeding clubs, one for Berkshire pigs and the other for Shorthorn Cattle.

The Berkshire club is run on the following lines: Pure-bred Berkshire sows bred to high class sires were bought and were divided amongst the club members by lot. Each member drawing a sow gave his note for \$70, or paid in cash to this amount and agreed to return two young sows of the first litter and one of the second litter to the society. Each member who did not receive a sow paid \$35 and received two spring sows eight weeks old. He also agreed to return two young sows to the society from his first litter. Any new member may receive two young sows by payment of \$35 and the return of two young sows from the first litter.

When the number of young sows coming in to the society exceeds the demand by new members the surplus will be sold and the proceeds put to the club's account.

The club started with eighteen members. Nine sows of excellent breeding were purchased for \$950, supplying half the members. The other nine members secured two young sows each from the 1921 litters of the sows. The litters of the nine sows gave an average of six pigs each and all the young boars were sold without difficulty through the society for \$16 each. Two of the members of the club own pure-bred boars which are used by the other members. The breeding, registration, etc. is controlled by the society.

Eighteen members joined the Shorthorn Club, and a committee was appointed to purchase heifers. Twenty-four heifers of between two and a half years and five years of age were bought at an average cost, including transit to Creelman, of \$185.81 each. Six of the members took two each, the others one each, lots being drawn. Each member was required to give a lien note for the amount of his purchase and these notes were used as collateral by the society to borrow money from the bank. A total of \$6,000 was borrowed. The Society owns a herd bull, bred by the University of Saskatchewan, and a service fee of \$5 is charged to members and \$15 to non-members.

W. E. H. L.

FRANCE.

THE AGRICULTURAL SYNDICATES IN 1919. - *Bulletin du Ministère du Travail*, Paris, April-May-June 1922.

The number of agricultural syndicates, which was 6,667 with 1,029,727 members on 1 January 1914, became 6,519 with 1,083,957 members

on 1 January 1920, that is a decrease of 148 bodies and an increase of 54,230 members.

The number of syndicates exceeds 100 in the following 24 departments: Isère, 230; Haute-Saône, 226; Marne, 218; Doubs, 198; Haute-Marne, 196; Indre-et-Loire, 193; Yonne, 181; Aube, 176; Meurthe-et-Moselle, 176; Nord, 173; Loire, 138; Lot, 133; Allier, 130; Charente, 126; Lot-et-Garonne, 122; Gironde, 118; Aude, 117; Puy-de-Dôme, 116; Côte-d'Or, 109; Vosges, 106; Dordogne, 104; Basses-Pyrénées, 104; Morbihan, 100; Haute-Savoie, 100.

The following are the departments in which the number of syndicate members is more than 20,000: Marne, 34,165; Isère, 33,393; Aude, 29,344; Gironde, 27,808; Loir-et-Cher, 26,822; Rhône, 26,235; Charente, 24,298; Haute-Garonne, 22,827; Sarthe, 22,617; Saône-et-Loire, 22,048; Puy-de-Dôme, 21,613; Seine, 21,259; Gard, 21,178; Hérault, 20,809.

The women who are members of the agricultural syndicates number 36,199.

The number of agricultural syndicates not supplying information as to their working in 1919 was 406.

With respect to unions of agricultural syndicates, on 1 January 1920, there were 99. Out of this number, the 77 unions that supplied information as to their working included 3,951 syndicates and 507, 993 members.

M. B.

GERMANY.

THE FEDERATIONS OF AGRICULTURAL LABOURERS AND EMPLOYERS. — BABLAS (Franz): *Tarifverträge und Landwirtschaft*. Berlin, 1921. — ALTROCK (Dr. Von): *Die Organisation der Deutschen Landwirtschaft*. Berlin 1921. — WYGODZINSKY (Prof. W.): *Die Ideenwelt der Landarbeiter*, in *Soziale Praxis*, No. 2. Berlin, 12 January 1921. — DAVID (Dr. Eduard): *Sozialismus und Landwirtschaft*. Leipzig, 1922. — DIETZE (C. von): *Die ostdeutschen Landarbeiterverhältnisse seit der Revolution*. Berlin, 1922.

I. — As early as 1875, the socialist movement began to promote the organization of agricultural labourers, on similar lines to that which had come about among workers in industry. Efforts in this direction were however attended with little success, a result which may be traced to causes of varying character: the difficulties encountered in achieving the objects of organization from the fact of the dispersal of the labourers, including women and boys, in many thousands of farms: the patriarchal relations between employers and labour which still held sway in agriculture; and finally the prohibition of the right of combination among agricultural labourers. The first large federations of agricultural labourers came into being only at the beginning of the present century, and have succeeded in gaining a firm footing only since the war, along with the introduction of freedom to combine. (The first ordinance dealing with this bears the date of 12 November 1918).

The most important agricultural labourers' unions are the German

Federation of Agricultural Labourers (*Der Deutsche Landarbeiterverband*) and the Central Federation of Agricultural Labourers (*Der Zentralverband der Landarbeiter*), the characteristic features of which we will briefly explain.

1. *The German Federation of Agricultural Labourers.* — This Federation was formed on 1 June 1909, as an independent socialistic organization of agricultural labourers, with headquarters in Berlin. It aims at promoting in every way the economic interests and the betterment of its members, particularly laying stress on a better form of the hiring agreement, while the principle of the class conflict underlies its action. In accordance with its rules, admission is open to all labourers engaged in agriculture and forestry in the territory of the German *Reich* without distinction of sex, age or nationality.

According to rules which came into force in February 1920 the supreme body of the Federation is the General Assembly which meets every three years and elects the Board of Management from among its own members. This latter body conducts the current business and represents the Federation in legal and other relations. To assist the Board of Management in regard to certain specific questions, to special measures of propaganda, to changes in the rules, etc., there is a council composed of nine farm and forest workers. The territory of the German *Reich* is divided by the Board of Management into 33 zones with 50 heads of zones and about 300 district heads; among their duties are those of carrying on propaganda and of supervizing the work of the local branches, numbering about 8,000, with at least ten members to each.

Members who have been enrolled in the Federation for six months and have paid their contributions can claim defence in a court of law by the Board of Management in all disputes originating from the hiring agreement. Sick pay is allowed to members who have belonged to the Federation for a year, who have paid 52 weekly contributions, and who are by reason of illness incapacitated from earning. A grant towards funeral expenses is made to the survivors of a member who has paid his contributions for at least two years. Payments are made during strikes or lock-outs, but only with the approval of the Board of Management, and only to members who have belonged to the Federation for 13 weeks and have paid their contributions regularly during that period. For a strike to be proclaimed, a resolution of the members concerned is essential, and this can only be taken after all possibility of negotiation is exhausted; it is moreover only valid when approved by a three quarters majority of those voting. Every striker has to report himself every day to the overseer. Note is made of such appearance on a sheet kept for the purpose (*Streikkarte*) and no strike pay can be drawn except after such registration. Proposals for return to work to be accepted must be supported by a two thirds majority of those voting. The Federation publishes a paper (*Der Landarbeiter*) which is circulated gratis among the members, and undertakes, *inter alia*, to publish statistics on the conditions of workers in agricultural and forest districts.

The membership of this Federation was :

in 1909	4,691
» 1912	17,023
» 1918	9,923
» 1919	624,935
at the beginning of 1921	780,000

Thus in the course of two years, after the revolution, from 1918 to 1920, the membership rose from 10,000 in round figures to more than three quarters of a million.

2. *The Central Federation of Agricultural Labourers* — The Central Federation of Agricultural Labourers was formed at Würzburg on 2 December 1912, as a national Christian labourers' union. The Federation aims at safe-guarding the economic and social interests of its members, by means of suitable reforms in the existing social and economic order. The organization of the Central Federation corresponds, in general, to that of the German Federation of Agricultural Labourers, except that the separate bodies have different names. The body with whom the final decision rests in the case of the Central Federation is the *Verbandstag* which meets at least once in three years.

It nominates the Central Management (*Hauptvorstand*) and the Council of the Federation (*Verbandsausschuss*) : this last acts as the organ of inspection and appeal for all the questions within the competence of the Central Management, and is composed of 12 members of whom five at most may be officials of the Federation. By this means a majority of members belonging to agriculture is assured, while the corresponding Council of the German Federation of Agricultural Labourers, as has been seen, is composed exclusively of such members.

The Central Management divides the area of the Federation into districts (18 at the present time) and into branch centres (4,000). The branch and district societies respectively elect for one year their own board of management, the election being confirmed by the central board.

The German Federation of Market Gardeners (*Deutscher Gärtnerverband*) and the Federation of Farm Servants (*Verband der ländlichen Dienstboten*) regard themselves as dependent on the Central Federation.

The Central Federation offers to its members, on similar terms to those in force in the German Federation of Agricultural Labourers, legal defence, sick-pay, funeral pay, strike pay, and free circulation of the Federal journal (*Die Rundschau*). Further the *Wirtschaftshilfe des Zentralverbands*, a limited liability company, supplies members belonging to its savings-bank section and to its economy committees, with clothing and other useful articles.

The membership of the Federation was :

in 1913	3,177
» 1918	6,973
» 1919	55,753
in April 1921	150,000

Thus here too there is a great development in membership from 1918 onwards.

3. Besides these two great Federations of workers on the land, there are also in existence organizations of minor importance. We may mention among others the *Reichslandarbeiterbund*, founded 29 May 1920, as the central body of the federations of agricultural labourers for purposes of combined administration. At the beginning of 1921 the *Deutscher Landarbeiterbund* which came into being 1 March 1913 also became part of this association. The *Bund* is a national Christian organization and represents the union of employers, employees, and labourers. Its principal sphere of action is Posen and to some extent Brandenburg. The total number of members amounted in 1921 to about 150,000 of whom about 50,000 were labourers. At the same date the Communist Federations of Agricultural Labourers (*Kommunistische Landarbeitervverbände*) and the *Schweitzerorganisationen* numbered respectively 15,000 members. These latter are special societies of cattle keepers and milkers, without any political tendency.

II. — *The National Federation of German Societies of Employers in Agriculture and Forestry.* — This Federation (*Reichsverband der deutschen land- und forstwirtschaftlichen Arbeitsgebervereinigungen*) was created 11 September 1919, as the central organ of the federated organizations of employers, with headquarters in Berlin. In accordance with its rules, dated 20 November 1919, it has as aims: 1. to create satisfactory relations between agricultural employers and labourers and between the respective organizations: 2. to safeguard the common interests by means of a firm understanding between the associations of employers in agriculture and forestry whether already in existence or to be created within the area of the German *Reich*.

The General Assembly meets at least once a year. It nominates the Board of Management, which remains in office for three years. All parts of the *Reich* are as far as possible represented on the Board of Management and the varying size of the farms is also taken into account. Membership of the *Reichsverband* is open to all organizations of employers in agriculture or forestry embracing at least one State, one Prussian province, or the district served by one Chamber of Agriculture. The affiliated federations have to pay an entrance fee and a yearly subscription, reckoned in proportion to the area of agricultural land under cultivation by individual members of the federation. Though retaining full autonomy, the federations are expected to observe the rules of the National Federation and the resolutions passed at its meetings, and to give immediate information to the Board of Management of important events affecting employers' interests.

III. — *Joint National Organization of the Associations of Employers and Labourers in Agriculture and Forestry.* — With the approval of the Ministry of Labour and the Ministry of National Economy of the *Reich*, on 20 February 1920, the German Federation of Agricultural Labourers, the Central Federation of Agricultural Labourers, the National Federa-

tion of Officials and Experts in Agriculture and Forestry (*Reichsverband land- und forstwirtschaftlicher Fach- und Körperschaftsbeamten*), the Federation of Employees in Agriculture and Forestry (*Verband land- und forstwirtschaftlicher Angestellter*) on the one hand, and on the other the National Federation of German Societies of Employers in Agriculture and Forestry, combined to form the Joint National Organization of Employers and Labourers in Agriculture and Forestry (*Reichsarbeitsgemeinschaft land- und forstwirtschaftlicher Arbeitgeber- und Arbeitnehmervereinigungen*). This has as object the study in common of the questions relating to the conditions of labour and the promotion of an understanding between employers and labourers on the subject. The main object is however to bring about the drawing up of wage scale agreements and their observance, to organize a plan for the settlement of disputes by means of arbitration, to present proposals to the authorities and to give their own opinion on questions relating to the conditions of agricultural labourers.

The *Reichsarbeitsgemeinschaft* is composed of an equal number of representatives of the associations of employers and labourers. Associations desiring membership must extend their activity over the whole of the *Reich* and must include at least 10,000 individual members. The workers' associations desiring to become members of the *Reichsarbeitsgemeinschaft* must in addition accept general trade union principles. On 12 August 1920 the *Allgemeine Schweizerbund*, with headquarters at Leipzig, joined the *Reichsarbeitsgemeinschaft*, while the *Reichsverband land- und forstwirtschaftlichen Fach- und Körperschaftsbeamten* withdrew from membership.

The organs of the *Reichsarbeitsgemeinschaft* are the General Assembly, consisting of 24 representatives of workers' organizations, the Board of Management with at least eight members, and the technical committees formed when necessary for the study of special questions. When the "*Arbeitsgemeinschaften*" are formed in the different States, Provinces or areas, the aims determined on will everywhere find realization.

M. T.

GREAT BRITAIN AND IRELAND.

CO-OPERATION IN THE SALE OF EGGS AND POULTRY. — WARREN (E. G.): A Successful Egg and Poultry Co-operative Society, in the *Journal of the Ministry of Agriculture*, Vol. XXIX, No. 2. London, May, 1922

The Framlingham and Eastern Counties Co-operative Egg and Poultry Society, Limited, whose activities have been mentioned in previous issues of this *Review* (1), continues its successful career. At the end of 1921 the society had 5,091 members holding 53,031 shares; a share capital of £13,257; a reserve fund of £4,043 and a total sale turnover of £282,353. During the year the society collected 24,146,059 eggs.

(1) Issues of February, 1918, page 113, and January-February, 1919, page 3.

The committee receive loans at the same rate of interest as is paid on the share capital, the amount on 31 December 1921 being £1,127. Each year the society has shown a good trade profit and during the last ten years has distributed £19,973 in bonuses. In many instances the bonus and interest have been returned for investment in further shares. The profits for 1921 amounted to £5,510. This sum was applied as follows: Interest on share capital, at 6 per cent., £742; bonus to employees, £355; bonus to members on the eggs, poultry, etc., sold to the society, £3,608; reserve fund, £429; and balance carried forward, £376. During 1921 there was an increased trade in poultry, rabbits, butter, etc., due to the provision of some 300 fattening coops at Ipswich. A record handling for Christmas week of 3,060 turkeys, 1,293 fowls, 329 ducks and 101 geese is noteworthy. The Committee purchases live fowls (roasting chickens and hens) at all times at given weekly prices per pound, weighed at Ipswich. It also purchases wild rabbits and hares during the season, and is a buyer of butter and other dairy produce and honey. The produce is paid for at market rates and the profits realized by the society are subsequently divided as a bonus to members in proportion to their deliveries.

One great drawback to the society's working is the heavy charges for rail carriage, which increased 50 per cent. during 1921. To obviate this the committee are negotiating for central premises in London where eggs can be sent in bulk by goods train, or otherwise. It is estimated that a considerable saving should be effected.

There are 50 or 60 depôts or agencies established by the society which collect from the villages by horse or motor vehicles. These depôts are controlled by salaried or commission agents. Each agency collects, tests and despatches its own eggs in accordance with orders received from the Central Office, Ipswich. Agents are instructed to return all bad eggs, to be replaced by good ones at the next collection. Great care is taken when appointing an agent to see that his premises are near a railway station, in order to prevent waste of time, petrol or horseflesh in carting eggs to the station after collecting and testing.

Each depôt has a set of books for recording in duplicate the collection and despatch of eggs, and sheets are detached and sent to the office daily. Each agent is provided with a standing balance for the purchase of eggs, and on the purchasing daily sheet reaching the office, the amount spent is forwarded to keep the standing balance normal.

The day book of each depôt is so ruled that the number of eggs collected and despatched on any one day can be seen at a glance, which enables the allocator of eggs at the central office to telephone, wire or write any extra order received, according to the quantity in hand.

Early in its existence the society adopted certain rules in order to make it a thoroughly reliable institution in the matter of despatching new laid eggs. The committee enforced the rules by fining for "dirty eggs" and making a deduction for "cookers". The following is one member's analysis at first joining, and the analysis one month later:

	<u>Eggs</u>	<u>Good</u>	<u>Coopers</u>	<u>Smalls</u>	<u>Bad</u>
First collection	109	4	90	7	8
Later collection	160	150	3	7	—

The War completely upset this system for organizing a supply of reliable eggs, because, the continental supply being cut off, the multiple shops invaded the society's collecting areas and purchased good, bad or indifferent eggs at a slightly higher price in order to secure them, thus affecting the work of the society in levelling up the quality of the eggs. At the commencement of operations each member was provided with a small rubber stamp, with which to number the eggs, but it was found that clients confused them with foreign eggs, and refused them.

The committee worked out several examples with the idea of purchasing eggs by weight, but taking the 2-oz. standard it was found that, as a whole, the cost would be about 5 per cent. more than if bought in the ordinary local way, and there were still the "smalls" to cope with.

The society has preservation tanks at Ipswich, Framlingham, Stradbroke and Wisbech with a total capacity of two million eggs. In order to prevent preserved eggs being sold as new laid, the society has prepared a solution which when applied to the shell of a preserved egg will cause it to "blush", but the solution will not affect a new laid egg. In the winter of each year, all agents are supplied with this solution, and lime or water glass eggs can be detected.

W. E. H. L.

SWITZERLAND.

THE TWENTY-FIFTH ANNIVERSARY OF THE FOUNDATION OF THE SWISS PEASANTS' UNION. — *SECRÉTARIAT DES PAYSANS SUISSES: L'Union suisse des paysans, 1897-1922. Brugg, 1922.*

On Whit Monday 1922 the Swiss Peasants' Union celebrated the twenty-fifth anniversary of its foundation. As is well known, the Union is made up of the agricultural organizations of Switzerland (agricultural societies, associations and syndicates, agrarian parties) with the aim of ensuring the representation of agriculture and the safeguarding of its interests. The Assembly of the delegates of the affiliated associations, which in theory meets every year, in reality can only be convoked once in two years. The Committee, which consists of 80 members, is nominated every four years by the Assembly of Delegates for the purpose of making the arrangements for the Assembly and of appointing a Management Committee of 11 members. This committee represents the Union in its relations with outsiders, manages its business, supervizes the sections of the Union and nominates the Director. The Director attends to the ordinary business and chooses the confidential agents who, in the communes in which they reside, are to further the Swiss Peasants' Union in the accomplishment of its task.

The central scientific department of the Swiss Peasants' Union is the Agricultural Secretariate. It undertakes the study of the state of the agri-

culture of the country and of the means of promoting it, makes collections of documents on the subject and makes proposals with a view to developing and encouraging the agricultural profession. Although under the control of the Union, it enjoys considerable liberty in its researches and work. It has direct access to the authorities and is able to present to the Union, to the agricultural associations, and to the authorities, proposals it considers to be of value. The agricultural secretary is also the Director of the Peasants' Union and conducts its business. The administration and the book-keeping of the two institutions are, however, quite distinct. We may add that the Secretariate has often been entrusted with important pieces of work by the Federal Department of Public Economy, the Federal Department of Trade, the Federal Department of Finance, and the Federal Department of Agriculture. The outcome of some of these has been the formation of special institutions or bureaux.

(a) *The Division for Researches into Agricultural Profits* carries on statistical researches which make it possible to judge of agricultural profits in Switzerland and to follow their variations according to the area of the farm, the system of cultivation adopted and other natural and economic factors, thus putting the agriculturist on his guard against the purchase of agricultural land at inflated prices. These researches further make it possible for the authorities and the public at large to form an exact notion of the actual position of agriculture, which is not possible for any other profession with a variable return. In several States institutions for the study of agricultural book-keeping have been formed, some of which have been modelled in a large measure on the researches of the Peasants' Secretariate into agricultural profits and have a similar aim. This has particularly been the case in Hesse, Baden, Wurtemberg, Norway, Finland and the Vorarlberg. The book-keeping department recently formed by the German Council of Agriculture has been set up on similar lines and will prosecute the same ends. An organization of the same kind is being set up in Holland.

(b) *The Central Office of Information on Prices*, established on definite lines in 1908, began by making quarterly reports on the international market of milk and dairy products, published in French and German, with summaries in Italian and English. The institution of these reports supplies the proof that it is within the power of a central organization to foresee future prices in some measure, and by the publication of exact data to avoid those fluctuations of price that do so much harm to producers and consumers. The Office has thus been led to extend its investigations to the prices of all farm products, and to bring out a special organ, the *Revue Suisse des marchés agricoles* in the form of a weekly sheet inserted in all the different agricultural papers of the country.

We may add that during the war the Office of Information on Prices was called on to execute a piece of work of great utility. From its foundation it had prosecuted enquiries into land sown and had made estimates of cereal crop returns. With the object of rendering assistance to the authorities and the bodies in charge of the provisioning of the country

and the distribution of articles of food, the Office went on to make similar enquiries and estimates for potatoes, fruit and other produce. The head of the Office took an active part in the discussions of the conferences called to fix maximum prices or to arrange for the utilization of produce and for rationing.

(c) *The Valuation Office*, inaugurated on 1 January 1914, makes it its principal business to fix the value of the yield of farming undertakings. The Division for Researches into Agricultural Profits calculates each year the exact value of the yield of several hundred estates that keep their accounts under its direction. Grouping the estates according to their natural or economic circumstances, it has established the relation existing for each class between the gross yield and the net yield of the farm. The Valuation Office in order to calculate the value of the yield of the estates which it has to value, makes use of this relation, known as the coefficient of yield. It first calculates carefully what is the normal gross yield of the land to be valued. Then it multiplies the figure thus obtained by the coefficient of yield of the type of farm which the property to be valued most resembles. This method of valuing rural property, based on the results of the exhaustive researches of the Secretariate into agricultural profits, is much the soundest in existence.

The majority of valuations which the Office is called upon to make are for probate. The Office is also called on to take part in official surveys. The manager of the Office or his staff have the right to vote or to take part in the discussion in a number of valuation committees. The very existence of the Office is an invaluable stimulus to the valuation committees; the possibility of its being called upon to undertake an inspection obliges them to do their work more carefully. The Valuation Office has been on the other hand kept very busy by the share it has taken in the operations made necessary by the revision of the fiscal laws of certain cantons, and by the imposition of the new federal war-tax.

In August 1919 a rural estate agency was added to the Office, which undertakes the sale or letting of rural property and on the request of the parties proceeds to a valuation of the property or a calculation of a fair rent.

(d) *The Office of Agricultural Works*, since 1 January 1917, supplements the work of the Valuation Office. It includes two distinct divisions. The business of the Advisory Office is more especially to reply to written or oral requests for information as well as to questions asked by practical farmers in the farming papers. It undertakes the examination of plans and estimates submitted to it and the valuation of buildings in existence and supplies farmers with all the advice they require in regard to buildings. The business of the Technical Bureau is the drawing up of simple preliminary sketches, of detailed plans and of estimates: it also takes in hand the direction of buildings which agriculturists or syndicates are anxious to entrust to the Office of Works.

(e) *The Office of Information as to Insurance against Accidents and Sickness*, gives all useful information as to these two forms of insurance:

on cantonal compulsory insurance, medical charges, voluntary accident insurance, etc.

Every year the Management Committee of the Swiss Peasants' Union lays down the programme of the Union in conjunction with the Peasants' Secretariate. The importance of the enquiries and reports it undertakes makes necessary the co-operation of the Secretariate. Consequently the Union and the Secretariate are frequently engaged on the same piece of work. The Secretariate puts at the disposal of the Union all documents collected in the course of its researches and enquiries. The carrying of the necessary measures into practice rests with the Union.

The nature and extent of the undertakings of the Secretariate and the Union obliged them from the first to take part in the drawing up of all federal proposals affecting agriculture. When these were presented to the people, it was their duty naturally to support publicly the legitimate interests of agriculture. With one single exception (the law on the hours of work in the carrying trade) the result of the voting was always in agreement with the line adopted by the Union. In its earlier days the Union only took part in voting when the proposals had an economic character. As its importance and prestige increased, the Union had to take up a position in regard to financial and political questions. In some cases it confined itself to passing a resolution recommending the proposal to agriculturists. In questions of special importance to agriculture, on the contrary, it did active propaganda work by means of lectures and meetings, as well as by diffusion of pamphlets, posters and appeals even to the most remote villages. It is undoubtedly the case that without the propaganda work of the Union, many proposals which afterwards proved of immense benefit to the country would have been in danger: such for example as the law on trade in articles of food, that on the customs tariff, and the new military law. We may add that the results of the voting on the new federal war tax and on the adhesion of Switzerland to the League of Nations are an eloquent testimony to the confidence that the Swiss peasants place in the Union and its sections.

On 31 December 1921, 50 associations or federations, numbering 364,994 members, constituted the Swiss Peasants' Union. During the financial year the Union had the disposal of 483,162 francs made up as follows: federal subventions, 75,000 francs; the income of the Union, 132,056 francs; receipts of the Office of Information on Prices, 93,596 francs; receipts of the Valuation Office, 43,450 francs; receipts of the Agricultural Works Office, 139,059 francs.

M. B.

UNITED STATES.

CO-OPERATION FOR THE SALE OF TOBACCO IN KENTUCKY. — *Florida Grower*, Vol. XXV, No. 14, Tampa (Florida), 8 april 1922.

The "white burley" district of Kentucky extends at points into Ohio, Indiana and West Virginia, but the bulk of the 200 million pounds

of white burley tobacco produced annually comes from some thirty counties in and adjoining the Blue Grass Region of Kentucky.

The Burley Tobacco Growers' Co-operative Association was the outcome of a conference of tobacco growers held in Louisville in March 1921, organized to discuss means for breaking the buyers' "trust". It was necessary to perfect the growers' organization between early April and 1 December, when the new crop would be ready, otherwise the growers would be compelled to sell on the terms of the buyers. The organization was accomplished in time and about 90 per cent. of the 1921 tobacco crop was pledged to the association. For the storage of this crop the association has obtained control of more than 100 warehouses.

A contract is signed by each member agreeing: (a) to sell and deliver to the association all the tobacco produced or acquired by him during a period of five years; (b) to abide by any rules made by the association relating to the handling, grading and selling of the tobacco, and that the decisions of the association at all times should be final; (c) that the association should "warehouse" the tobacco from each member with all tobacco of similar type, grade or quality, and that tobacco delivered to the association in any crop year should be handled in one "major pool", the minor pools to be composed of the different grades established by the association; (d) that every grower would get the same price for tobacco of the same grade, less all expenses, these expenses to be prorated; (e) that the association could borrow money in its name on the tobacco stored in any warehouse and prorate the money so borrowed among the growers; (f) that the grower should not be compelled to plant tobacco during the five year period, but any tobacco coming into his hands during that time should be delivered to the association.

W. E. H. L.

Credit

MISCELLANEOUS INFORMATION RELATING TO CREDIT

NEW ZEALAND

STATE ADVANCES TO SETTLERS — NEW ZEALAND OFFICIAL YEAR-BOOK, 1921-22, Wellington, 1922

State advances to settlers are made in New Zealand principally by the Advances to Settlers Branch of the State Advances Office, but also by the Public Debt Sinking Funds Branch and the Advances Office Sinking Fund Branch. The following are particulars of the advances to settlers in the year ended 31 March 1921 :

	Number	Amount £
Total applications received	2,505	29,186,149
Loans authorized :		
By the Advances to Settlers Branch	1,813	907,610
By the Public Debt Sinking Funds Branch	218	162,015
By the Advances Office Sinking Fund Branch	54	37,805
Total loans authorized	2,085	1,107,430
Total amount advanced		1,060,260
Total amount repaid		1,065,003

The Advances to Settlers Branch actually made during the year 1920-21 advances numbering 1,571 and amounting to £880,120. Of these 862, amounting to £328,245, were for sums not exceeding £500 ; 671, amounting to £496,430 were for sums between £500 and £1,000, and 38, amounting to £55,445, were for sums between £1,000 and £2,000. The nature of the security on which the loans were granted was as follows : Freehold, 1,308 advances amounting to £721,395 ; leasehold, 259, amounting to £155,430 ; freehold and leasehold combined 4, amounting to £3,295.

The advances made by the Advances to Settlers Branch and outstanding on 31 March 1921 numbered 17,756 and amounted to £6,918,274. Of these 10,989 amounting to £4,477,285 were on rural land and 6,767, amounting to £2,440,989 were on urban and suburban land.

J. K. M.

SWITZERLAND.

THE RATE OF INTEREST ON MORTGAGE LOANS. — SECRÉTARIAT DES PAYSANS SUISSES : L'Union Suisse des paysans, 1897-1922. Brugg, 1922.

The increased cost of agricultural production is not due solely to the rise in wages and in the price of agricultural requisites : it is also the con-

sequence of the increase in the rate of interest on loans on landed property. This rate had gone up already from 1906 and 1913, and during the War it increased in such a proportion that it is today nearly 20 per cent. higher than in 1900 to 1905.

The average rate of interest on loans on landed property effected by certain large Swiss banks is as follows :

Name of the banking institution	1900 to 1905	1906 to 1913	1914 to 1919	1918	1919	1920	1921
Zurich Cantonal Bank . . .	4.04	4.205	4.725	4.800	5.008	5.260	5.354
Mortgage Bank of Winterthur	4.21	4.387	5.011	5.211	5.237	5.590	5.846
Mortgage Bank of the Canton of Berne	4.14	4.328	4.788	4.811	4.996	5.242	5.301
Lucerne Cantonal Bank . .	4.08	4.234	4.484	4.520	4.500	4.536	4.514
Cantonal Bank of Uri . . .	4.13	4.082	4.888	4.863	5.000	5.000	5.000
Schwyz Cantonal Bank . . .	4.16	4.387	4.726	4.730	4.850	4.850	4.500
Cantonal Bank of Obwalden	4.08	4.432	4.631	4.750	5.250	5.250	5.185
Cantonal Bank of Nidwalden .	5.09-5.46	4.263	4.809	4.920	5.000	5.000	5.000
Glarus Cantonal Bank . . .	4.00	4.060	4.502	4.500	4.486	4.422	4.528
Zug Cantonal Bank	4.08	4.200	4.772	4.983	5.065	5.038	5.222
Bank of the State of Friburg (1)	4.24	4.484	5.033	5.000	5.334	5.554	5.704
Mortgage Bank of the Canton of Friburg	4.46	4.568	5.041	5.000	5.300	5.570	5.804
Cantonal Bank of Solothurn .	4.11	4.323	4.976	5.040	5.030	5.170	5.520
Cantonal Bank of Bâle	4.28	4.395	4.719	4.960	5.060	5.250	5.830
Cantonal Bank of Bâle-Coun- try	4.10	4.239	5.045	5.137	5.314	5.425	5.690
Schaffhausen Cantonal Bank .	4.08	4.364	5.030	5.097	5.312	5.300	5.578
Cantonal Bank of Appenzell (Exterior)	4.00-4.50	4.440	4.954	5.184	5.057	5.096	5.188
Cantonal Bank of d'Appenzell (Interior)	4.13-4.38	4.228	4.276	4.286	4.307	4.700	4.985
St. Gall Cantonal Bank . . .	4.11	4.422	4.871	4.830	5.100	5.300	5.491
Grisons Cantonal Bank . . .	4.19	4.416	4.832	4.840	5.020	5.180	5.500
Cantonal Bank of Aargau . . .	4.10	4.331	4.943	5.002	5.027	5.292	5.560
Mortgage Bank of Aargau . .	—	4.692 ⁽²⁾	5.041	5.140	5.324	5.527	5.888
Cantonal Bank of Thurgau . .	4.11	4.287	4.926	5.014	5.000	5.026	5.301
Mortgage Bank of Thurgau . .	4.15	4.347	—	—	—	—	—
Vaud Credit Foncier	—	—	—	—	—	—	—
Mortgage and Savings Bank of the Canton of Valais	4.00	4.517	4.931	5.032	5.432	5.050	5.407
Neuchâtel Cantonal Bank . . .	4.37	4.464	4.881	4.789	4.869	5.121	5.540
Neuchâtel Credit Foncier . .	4.27	4.471	5.016	5.248	5.282	5.450	5.811
Mortgage Bank of Geneva . .	4.36	4.422	5.011	5.185	5.037	5.577	5.883
Average	4.143	4.346	4.865	4.918	5.055	5.176	5.381

1) Cantonal taxes, etc., not included.

2) Average 1912 to 1913.

UNION OF SOUTH AFRICA

THE LAND AND AGRICULTURAL BANK OF SOUTH AFRICA — REPORT OF THE
LAND AND AGRICULTURAL BANK OF SOUTH AFRICA FOR THE YEAR ENDED 31ST DE-
CEMBER 1921. Cape Town, 1922.

The year 1921 was marked, in South Africa, by a disastrous slump in the price of produce. Many farmers, more particularly those who had responded to the call to produce on a larger scale, found themselves in financial straits. When it was found that the produce did not realize an amount sufficient to reimburse the liabilities incurred in the abnormal costs of production, the farmers were compelled to resort to money-lenders, in some instances having to pay 30 per cent. on the loans obtained. It was unfortunate that, at a time when the need of credit was so strongly felt, the Land and Agricultural Bank had been compelled, owing to shortage of funds, to stop granting advances. This step had been taken in November 1920; it was not until July 1921 that the Bank was able to resume the granting of ordinary loans, and then only to a limited extent. Advances were not made to redeem existing bonds, nor to enable applicants who possessed land to purchase more land, while only advances up to £500 were paid out.

The number of applications for new advances naturally fell off. There were 2,467 applications for ordinary loans in 1921 for a total amount of £1,499,871 as compared with 2,978 applications for a total amount of £2,463,270 in 1920. Of the 2,467 applications received in 1921, only 850 were received up to July; the remaining 1,800 were received subsequent to that date. The applications granted numbered 1,978 and amounted to £900,330, and in 1,172 of these cases loans were issued during the year, the total amount being £472,135.

During the year 440 applications were received for loans under the Fencing Advances Act (No. 17 of 1912). Of these 303, amounting to £48,340 were approved; they were for the erection of 810 miles of fencing at an average cost of £60 per mile. There is a growing call on the Bank for capital to erect vermin-proof fencing, which costs about £150 per mile. The farmers are pressing for amendments to the fencing law whereby vermin-proof fencing may be declared compulsory if that be the desire of a majority of the farmers of a particular area, and whereby the Bank will be enabled to grant loans to groups of farmers who desire to erect vermin-proof fencing on the boundaries of blocks of farms.

The applications for advances for the erection of dipping-tanks (Act No. 20 of 1911) numbered 299 in 1921. Of these, 217, amounting to £27,569 were approved. The amount paid out during the year in respect of dipping-tank advances was £35,189, of which £5,000 was for dipping-tanks in native areas.

Of the sum of £50,538 advanced to enable farmers in certain areas in the Cape Midlands to purchase stock in order to rehabilitate themselves after losses caused by the droughts and floods of 1916, an amount of £1,567

still remained owing on 1 January 1921. The balance due was reduced to £1,030 at the end of the year, and had been further reduced, when the Report of the Bank was issued, to £856.

Applications from co-operative agricultural societies for advances amounting to £416,200 were received during the year. Of this total, advances were granted amounting to £347,900. The loans to co-operative societies outstanding at the end of the year amounted to £1,027,099.

During the 1921 session of Parliament amendments were made to the Land Bank Act. The Bank had previously been dependent for its funds, apart from its own receipts, upon Parliamentary votes. This method was satisfactory in so far as ordinary advances were concerned, but it was not satisfactory in respect of funds necessary to finance the seasonal requirements of co-operative societies, as the money lay idle in the Bank for a certain part of the year. Under the amending Act funds for these advances can be raised by short-date bills or overdraft. Any excess of the reserve fund of the bank above £350,000 may now be utilized (should the funds of the Bank be adequate for its purpose) to redeem the capital funds advanced by the State to the Bank. The cost to the State of raising money has necessitated the Bank being authorized to increase the rate of interest to new applicants; ordinary advances now bear 6 per cent. interest, and fencing, dipping-tank and silo advances 5 per cent. Ordinary advances could formerly be made for thirty years, but the Bank now has discretion to grant loans for any shorter period. On the other hand, the period of five years allowed to holders of Crown land within which to repay advances was too short, and the Bank may now grant these loans for any period up to ten years. The Bank may now make advances for the construction of silos on the same terms as dipping-tank advances.

By virtue of Proclamation No. 56 of 1920 of the Administrator of South-West Africa, the Land and Agricultural Bank was empowered to carry on operations in that territory as from January 1921. The funds for the Bank's purposes are specially set aside by the Administrator, and £350,000 was made available for the financial year ending 31 March 1922; of this amount, £200,000 was received during 1921.

There were 423 applications in 1921 for advances totalling £754,395. Of these 307, representing £373,960 were granted, and 116 loans for a total of £173,095 were issued during the year. The purposes represented by the amount of £173,095 were: Improvements, £36,330; purchase of stock, £7,500; taking over *Landwirtschaftsbank* bonds, £36,215; redeeming onerous bonds, £48,310; redeeming other liabilities £23,085; purchase of land by persons owning no property, £21,655.

The form of application for loans was printed in German as well as in Dutch and in English, and 88 per cent. of the advances were made to persons of German nationality.

J. K. M.

Miscellaneous Questions relating to Agricultural Economy

ECONOMIC AND SOCIAL CONDITIONS OF THE AGRICULTURAL CLASSES

KINGDOM OF THE SERBS, CROATS AND SLOVENES.

AGRICULTURAL UNDERTAKINGS OF THE RUSSIAN REFUGEES.

By BORIS KALINSKY.

SOURCES :

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- PLAN D'ORGANISATION DE TRAVAUX POUR LES RÉFUGIÉS RUSSES DANS LE ROYAUME S. C. S. Delegation of the Union of Russian Zemstvos in the Kingdom of S. C. S. Manuscript. Belgrade, 1922.
- REVUE ABRÉGÉE DES ENTREPRISES DES RÉFUGIÉS RUSSES FONDÉES AVEC L'AIDE DE LA DÉLÉGATION DE L'UNION DE ZEMSTVOS RUSSES DANS LE ROYAUME S. C. S. ENTREPRISES AGRICOLES ET AUTRES DU MÊME GENRE. Extract from the manuscript report of V. F. CHATZKY, agricultural expert. Belgrade, 1921.
- LES VIGNOBLES DES RÉFUGIÉS DE SMÉDÉRÉVO. Manuscript belonging to the archives of the delegation of the Union of Russian Zemstvos in the Kingdom of the S. C. S. Belgrade, 1922.

In the years 1918 to 1921 nearly one million Russians left their country. In that number almost all the occupations were represented, but the majority were former officials, officers, members of the learned professions and students.

These Russians are not, strictly speaking, emigrants, although that is the name given in analogous historic circumstances to those who find themselves, for the time at least, unable to live in their own country. Emigrants, in the true sense, leave their country of their own accord to go to seek far afield better conditions of life. Their future plans relate to their new place of abode which becomes for them a new mother country. If they have left relatives at home, they can send for them to join them when circumstances permit. But the position of these Russians is so different that "refugees" is the only name which can be applied to them, and it is as such that they regard themselves.

The circumstances in which they arrive in a foreign country, their destitution and frequently also their state of health, makes it very difficult to find employment for them. Intellectually they are on a level above the working classes, but their good-will, their anxiety to work, make them readily adaptable, and once their primary needs have been met and the means to find a footing supplied, they very quickly come to be no longer a burden on the country that has given them hospitality.

The following account of the Russian refugees in Serbia will serve to show the extent to which they have taken up agricultural occupations, the success achieved, and judging from this latter, the steps that remain to be taken to assist other refugees who are still without employment to imitate their example

* * *

According to the official returns, among the Russian refugees who have found shelter in the Kingdom of the Serbs, Croats, and Slovenes and are in receipt of maintenance subsidies 23,000 are able to work. Their classification according to their previous education is as follows :

TABLE I. — *Previous Education of Russian Refugees of the age of 18 and over, domiciled in 1921 in the Territory of the Kingdom of the S. C. S., according to the Official Returns made for the State Commission of the Russian Refugees.*

Education	Number of refugees	Percentage
Higher	3,237	13.3
Secondary	15,200	62.4
Elementary	2,792	11.5
Domestic training	1,748	7.0
Illiterate	693	2.9
Unspecified	672	2.8
Total	24,342	100.0

About 10,000 of these are in the employ of the Government or of municipal and other bodies. There would thus be 13,000 requiring assistance to put them in the way of earning a livelihood. But thanks to the combined efforts of the S. C. S. Government, and of Serbian, Serbo-Russian and Russian social organizations, there is hope of finding employment for 5,000 more.

For about 8,000 refugees, men and women, the majority of whom have received a secondary or higher education, room cannot be found in the Kingdom of the S. C. S., whose economic possibilities and manifold responsibilities do not permit of the absorption of a fresh element, unless indeed there is a change for the better in the financial and economic conditions of the country. However it would seem that with some small assistance, room might be found for these 8,000 persons on lines advantageous not only to themselves but to the country into which they have gained admission, if they engaged in different branches of agriculture, an occupation thoroughly familiar to the greater number of the refugees.

However this may be, the following figures show by means of a somewhat general classification the occupations in which some of these refugees were engaged in 1914, in what proportion they have been able to keep to these occupations, and the number of these wishing to be still so employed.

TABLE II. — *Occupations of Russian Refugees as shown in the Official Returns of the State Commission on the Russian Refugees.*

Classification of occupations	Refugees following these occupations		Refugees wishing to follow these occupations
	in 1914	in 1919-20	
Manufacturing industries . . .	1,161	657	4,806
Transport	425	296	1,691
Rural occupations . . .	1,810	237	4,235
Household occupations . . .	72	85	—
Trade	526	204	777
Total .	3,994	1,479	11,509

Thanks to the returns already mentioned, we can arrive at a less general and more exact classification in respect to these refugees, based on the same lines as the preceding (Table III, page 632).

The Zemsky Soyus (Union of Russian Zemstvos), though with very restricted means at its disposal, comes to the help of the Russian refugees so far as it possibly can with the aim of enabling them to engage in agricultural undertakings, various trades and other occupations likely to make their following them in a measure independent. The representatives of the Soyus do all they can to realize this aim in every country of Europe where there is a large number of Russian refugees. At Belgrade the office of this organization is at 26, Rue Negoucheva.

The activity of this branch of the Soyus amounts to very little in comparison with the assistance of which the refugees stand in need. Out of the 5,000 refugees, of whom it has been said that hopes are entertained of finding employment for them, only a very small number can be helped by this organization; as to the 8,000 others, forming the remainder of the

TABLE III. — *Occupation of Russian Refugees, according to the Official Returns of the S. C. S. State Commission on the Russian Refugees.*

Occupations	Refugees following these occupations		Refugees wishing to follow these occupations
	in 1914	in 1919-1920	
Managers of factories, business houses, etc .	682	226	86
Engineers	279	223	270
Agricultural and forestry experts . .	102	17	119
Technicians	336	254	1,940
Workmen	80	63	1,157
Draughtsmen	31	13	411
Technicians (subordinate)	53	27	119
Employees (excepting officials)	491	266	1,152
Artizans	328	137	2,440
Owners of agricultural land.	542	109	—
Peasants (small holders)	840	1	3,449
Tradesmen	147	57	352
Domestic servants	72	85	—
Total	3,994	1,479	11,509

Russian refugees in the Kingdom of the S. C. S. it cannot be too often repeated, that neither the Soyus, nor anyone else, is in a position to find them a livelihood in that country, in existing circumstances.

The work undertaken by the Soyus is based on the equitable principle that grants allocated are subject to repayment, and on the whole it is successful, especially in connection with occupations depending on agriculture. In the course of 1920 and 1921, with the help of the Zemsky Soyus, a number of Russian refugees were enabled to escape from their unfortunate situation and become small tenant-farmers on lands deserted by their owners. In this case the settlement of Russian refugees has been an advantage to the country by increasing agricultural production.

The owners of the lands thus farmed by the Russians, more especially peasant families the working members of which were killed in the war, benefit equally by this arrangement, and the Russian refugees have the advantage of being able to devote themselves to a kind of work with which they are familiar, even if they are only tenants of the land they cultivate.

The refugees who have been helped by the Zemsky Soyus to settle in this way do not display any special aptitudes. They are the ordinary type of Russian intellectuals. Hence their success in their agricultural undertakings enables us to gauge the beneficial results which would accrue

from the settlement of those still unoccupied, if some other country, which had suffered less from the war and possessed sufficient economic resources, could offer them work of this kind.

Some particulars are given below of the grants made by the Zemsky Soyus, and the nature of the undertakings thus subsidized.

TABLE IV. — *Agricultural Undertakings of Russian Refugees in the Kingdom of the S. C. S. in receipt of Loans from the Zemsky Soyus in 1920 and in 1921.*

Agricultural undertakings	Number of undertakings	Number of Russian refugees employed	Amount of loans — dinars
Farming of land.	15	124	66,275
Vine growing	14	20	120,000
Wine making	3	10	21,000
Dairying	19	60	100,000
Kitchen garden and orchards	16	50	49,420
Fattening of pigs	10	30	43,500
Fattening of cattle	1	6	9,000
Fat rendering	1	2	6,000
Fishing	5	31	33,300
Fruit preserving, etc.	6	16	24,000
Poultry-keeping	2	6	10,000
Bee-keeping	2	3	8,000
Manufacture of <i>trefir</i> (fermented milk)	2	2	5,000
Wood cutting	3	11	33,000
Basket making	3	4	2,000
Turf cutting	1	4	8,000
Total	103	379	538,495

A glance at some figures taken from the official returns of 1921 made to the State Commission dealing with the refugee question will enable us to judge of the importance of the assistance given by the Zemstvos to the Russian refugees in the territory of the Kingdom of the S. C. S. These figures show that out of 12,167 men and 3,890 women, classed in 1921 as fit for work but so far without fixed occupation, 237 women and 1,810 men had before the War been engaged in occupations connected with agriculture. On the questionnaire distributed in view of the return, there was a space for inserting the occupation desired. Nearly all those who had stated that their previous occupation was of an agricultural kind asked for assistance to return as far as possible to the exercise of such occupation. Many

refugees who had followed other occupations before the War, but who had from time to time taken part in agricultural work, without being owners or tenants, also begged to have the chance of working at agriculture. Out of 16,147 refugees unemployed, of whom 12,167 were men and 3,980 women, 4,235 filled the form in this way, that is 25 per cent. It may be added that out of this number, there were from 600 to 700 who had gone so far as to set up for themselves, but from the inadequacy of their resources and the high price of all farming requisites, their undertakings were of a purely provisional nature. Some of these are engaged in rearing poultry. They have from 100 to 200 fowls and sell the eggs in the neighbouring market-town. Others keep from five to six pigs on the scraps given them by the town restaurants. Several have leased maize fields of from one and a half hectares to two hectares previously tilled and sown. Undertakings of this kind give a return just balancing the grant made by the Government but not yielding a livelihood for those who engage in them with their families. It is possible that some refugees have succeeded in settling down and supporting themselves, but data on this subject are wanting. From the beginning of 1920 up to July 1922 the refugees who have received grants from the Zemsky Soyus have set up nearly 120 business undertakings. These take the form of small co-operative undertakings of from 5 to 7 persons. The number of people so engaged is about 500, and if the members of their families are added we may reckon about 1 500 refugees settled on these lines.

The Soyus reached its maximum activity between the beginning of 1920 and the month of June 1921. During that time 103 undertakings were organized providing employment for 375 persons. From July 1921 to June 1922 it proved impossible to organize more than 20 new undertakings with the assistance of the Soyus, as this body found itself compelled by lack of resources to limit the amount of help given to the refugees. At the present time it only grants subsidies to undertakings where from their nature the turnover is rapid, thus ensuring repayment of the short term loans advanced.

The local organization of the Zemsky Soyus has however drawn up a scheme based on Government assistance whereby Russian agricultural settlement is to be increased. This is set out in Table V (page 635).

Since what has been already accomplished is the best guarantee of the success of possible future undertakings of the same kind, we will now give some details of the work done in agriculture by the refugees in the course of 1921 and 1922.

In 1920, the Zemsky Soyus financed 40 agricultural undertakings worked by Russian refugees. In June 1921 one-third of these undertakings were already on an independent footing. They are still in existence with the difference that they have given up the co-operative form and have adopted an individual character. Another third did not achieve so stable a position till towards the summer of 1922. Finally about a dozen of the undertakings were not workable and soon ceased to exist.

TABLE V. — *Proposed Outlay for the Agricultural Settlement of 2,800 Russian Refugees now Domiciled in the Territory of the Kingdom of the S. C. S. on the lines of the Report of the Zemsky Soyus to the State Commission on these Refugees.*

Undertakings	Number of refugees for whom employ- ment will be pro- vided	Outlay required for inaugurating these undertakings — dinars
Vineyards	500	2,450,000
Kitchen garden-	1,000	2,025,750
Seed production	200	622,620
Butter making	200	892,400
Wheat growing	900	4,564,798
Total	2,800	10,555,568

During the first five months of 1921, the Zemsky Soyus financed from 60 to 63 agricultural undertakings. Using the experience gained in 1920 as a basis, it took careful note in each case of the type of persons and groups of persons anxious to set on foot undertakings of the kind, and went carefully into the question of the economic conditions essential to success. From 1921 onwards the Zemsky Soyus has profited by the advice of the Association of Russian Agricultural Experts, Veterinary Surgeons and Forestry Experts in the Kingdom of the S. C. S. M. V. T. Chatzky, agricultural expert, vice-president of the Association, examines the estimates and the plans drawn up for the Zemsky Soyus, and the members of the Association of Agricultural Experts who are at the present time in the Government service see that the preliminary operations follow the lines laid down by the Vice-President. The Soyus endeavours besides to ensure the sale of the produce of these undertakings. Thanks to these precautions success has attended the undertakings that date from 1921, and a very small number of them have come to an end. Those that have been founded in 1922 all seem in a fair way to develop.

As a means of assisting Russian refugee agriculturists, the Zemsky Soyus grants them a loan enabling them to start operations and to purchase seeds. When a single individual is stocking the farm, a credit of 2,000 dinars is granted to him, rarely more, but sometimes up to 2,600 and even 3,000 dinars. Co-operative undertakings receive from 6,000 to 8,000 dinars. In exceptional cases even higher credits are arranged. The total amount granted in credits in 1920-21 to individual and collective undertakings was 540,000 dinars.

Details as to these undertakings and their activity are only available up to 1921. The following are representative.

Agriculture. — The farming of estates chiefly composed of arable

land accounted for fifteen undertakings in which 124 persons took part. These were usually on a one year's, rarely a two years' lease. The area farmed was thus about 100 hectares. The Zemsky Soyus granted 66,275 dinars credit towards these. Since labour is very costly, the Russian tenant-farmers decided on a kind of cultivation not requiring a large number of farm-hands. They grew maize, potatoes, and also but to a less extent, wheat, barley and beet-root. The area of the lots varies from one to thirty hectares, and the rent is from 6 $\frac{1}{4}$ dinars to 552 dinars per hectare. In some cases communes and private persons have made free grants of land to the Russian refugees.

In spite of the drought, which was unfavourable to the crops in 1921, the net yield of the Russian refugees' farms reached an average of 1,750 dinars per hectare, or 175,000 dinars for the whole area occupied by them.

By sheer good will and sometimes even by the application to the preparation of the soil and to cultivation of methods entirely new to Serbia, excellent results were achieved by former clerks and officers, especially at Palanka on a farm of four acres, where a very fine crop of maize was raised, whereas everywhere else it had been spoilt by the drought.

At Senta, in 1921, on a farm of 14 hectares, a successful attempt was made to cultivate not only maize and potatoes, but also sugar beet on 4 hectares, and tobacco on 2 hectares, as well as melons, water melons, pumpkins, and barley. Four Russian refugees do all the work themselves, and all their crops have been a success, apart from hail storms which have destroyed their tobacco plants.

The greater number of the undertakings of 1921 were taken up again in 1922 by the same persons and this time without any need for assistance from the Zemsky Soyus.

Viticulture. — The Russian refugees in 1920 had already begun to engage in vine-growing. In that year, four groups of viticulturists had established themselves on the vineyards which they rented in the neighbourhood of Smederevo, not far from Belgrade. This enterprise has had good results from the first. From the time of its inauguration up to June 1921 seven other co-operative groups were formed in the same locality. This makes eleven groups including 50 growers. Towards the autumn of the same year this figure went up to 80, and the number of plantations to 14, with 245,000 vine stocks. The price per stock varied from 0.28 dinar to 2 dinars. The Zemsky Soyus granted a credit of 120,000 dinars for these undertakings.

The Russian vine-growers generally rent the vineyards for a term of 2 to 3 years. Agreements for a period of 5 to 6 years are the exception.

In 1920 to avoid local competition, the Russian vine-growers arranged to sell their table grapes to Russian restaurants in the towns where the number of refugees was considerable. With the remainder of their grapes, they made *rakia*, a kind of local brandy. This way of using their crop was somewhat less advantageous. But by submitting to this trifling loss, they avoided a clash between their own interests and those of the owners of neighbouring vineyards. At the present time, the Russian

colony at Smederevo numbers several hundred persons, a figure including the vinegrowers and their families. Their stay in the district is by no means without value to scientific cultivation, for since their methods differ from those practised in Serbia, new and valuable ideas sometimes spring from the fact of juxtaposition.

In 1920-21, the activity of the Russian vine growers met with a check. There was some question of their delivering grapes to the neighbouring co-operative society for the manufacture and sale of wine, but as operations were only carried out through members of the society, the Zemsky Soyus organized a wine manufacture and a selling depot for the Russian producers. These latter have not only had the advantage of this organization, but they have had the satisfaction of getting the advice of M. L. L. Markoff, an expert in viticulture, the specialist who was formerly attached to the vineyards belonging to the Crown lands in the Caucasus. It was in 1920 that they gained these advantages, and at that time they were already cultivating 108 hectares in vines.

The plant installed by the Zemsky Soyus at Smederevo has a capacity of 200 tons. In 1921 102,000 litres of wine were placed in store made by the Russian refugees. Four loads were sold in Agram and the remainder at Smederevo and Belgrade in the depots of the Zemsky Soyus. The plant above mentioned can deal with 120,000 kilos of grapes, and it was estimated that the wine could be kept there if necessary for eight months. As this period had to be extended, the business became of a permanent nature. The upkeep cost 60,000 dinars of which half has been advanced by the State Commission. These 60,000 dinars have been repaid out of the product of the sale of the wine. The Zemsky Soyus does not pay the refugees for the grapes supplied at the time of delivery, but after the wine is sold. After deduction of the price of the grapes and of the payments due to the Zemsky Soyus and the State Commission, the remainder was divided between the Russian leaseholders of the vineyards in proportion to the quantity of grapes produced by each. The Zemsky Soyus has no other share in the profits of this undertaking. The necessary relations between this body and the growers as regards the handling of the grapes and the sale of the wine are adjusted by means of an agreement attested before a notary. In many cases the excellence of the output of these refugees is explained by the fact that some of them practised viticulture in the Caucasus and Crimea. Their resources were undoubtedly inadequate to the needs of their new undertakings, but they were nevertheless able to devote to this purpose sums of much larger amount than the advances made to them by the Zemsky Soyus, whose assistance has however been indispensable to them. Without this subvention they would never have achieved success.

Apart from the Russian refugees who take part in this vine-growing and wine making enterprise at Smederevo, there are many who are experts in the matter but the greater number of them are entirely without means. Nor are the means of the Zemsky Soyus sufficient to allow of its being responsible for any more schemes of the kind.

Dairying. — Nineteen Russian dairies, worked by 60 refugees, were engaged in 1921 in the making of butter and cheese, especially of cheese of the Grande Chartreuse type. The Zemsky Soyus made loans of 100,000 dinars to these undertakings. The value of the machines, separators and churns supplied is generally included in the sum thus granted.

The making of butter for sale is hardly developed in the country, though the number of dairy cattle is considerable, and there is a great demand for dairy produce.

The price of milk is subject to variation, thus giving an advantage to the industries concerned in its manipulation. In a radius of 200 to 300 kilometres, the prices vary by 150, 200 and even 300 per cent., when not more. All the dairy undertakings have had advances from the Zemsky Soyus and are doing well; there are only a very few of them that had bad times to begin with. The majority have depots in the neighbouring towns where they sell their produce.

The greater number of these Russian dairies began in 1921 on quite modest lines. They dealt with 5,000 to 6,000 kilos of milk only per month. They made use only of hand labour and the net return was not more than 1,200 to 1,500 dinars. After a very short time, they were able to improve their equipment, often to the point of having machines, and they then handled up to 9,000 litres of milk, giving them 450 kilos of butter and 1,000 kilos of cheese per month.

Following the suggestions and advice of the Association of Russian Agricultural Experts, the refugees who took up dairying joined to it the rearing of pigs. The less important dairies which did not handle more than 125 litres of milk a day, could rear eight pigs. When it was possible to add to their food a quarter kilo of maize per head as many as 12 could be reared. At the end of two months, a net income of 1,000 dinars was added to these businesses in 1921 by pig-rearing.

At the present time the Association of Agricultural Experts advises the dairies to use a part of their bye-products for the extraction of casein. The Zemsky Soyuz has made a study of the methods to be used in this new kind of activity. The casein produced will be used in the country and possibly even exported.

The butter making factory of Soubolitza, organized by a Russian agricultural expert with the help of an advance of 4,000 dinars, at the end of two years became an important business undertaking. Three months after it had been inaugurated, the expert in question was selling its produce in Soubolitza in two shops belonging to him. At the end of six months he set up his plant on a farm near the town, and the quantity of milk made into butter there came to 30,000 litres a month. The estimated value of this business at present is several hundred thousands of dinars.

The dairy produce obtained by the Russian refugees is of good quality and of uniform type, for in all their dairy undertakings they have profited by the suggestions and advice of the Association of Agricultural Experts which means that the same system is followed throughout the manufacture. Thus this produce is already well known and appreciated on the

market, and the demand for butter, soft cheese and Grande Chartreuse cheese of Russian production much exceeds the supply.

The number of Russian refugees anxious to engage in this industry and capable of devoting themselves to it is considerable, since it is evident that there are glowing prospects attending this kind of activity in Serbia. Unfortunately the purchase of equipment is essential, and the Zemsky Soyus could not help even the tenth part of the Russian refugees who would gladly elect for this occupation knowing they possess the qualities required for success.

Market Gardening. — In 1920 and 1921 16 market garden undertakings were organized with the help of loans from the Zemsky Soyus and with the approval of the Association of Agricultural Experts.

The plots worked by the Russian refugees who devote themselves to that type of cultivation are lots of from 400 square metres to the hectare and sometimes even up to 2 hectares. There are some of larger extent, but that is exceptional.

The Russian market gardeners preferably grow the vegetables for which there is most demand in the local market, beans, tomatoes, capsicums, melons, water-melons, pumpkins, cucumbers and cabbages.

The increase in the size of the towns of the country gives promise of a future for market gardening on their outskirts, since the peasants do not engage in it to any extent and so far this kind of cultivation is carried on only to a very limited extent.

Following the advice of the Association of Agricultural Experts, the Russian market gardeners force their vegetables in hot-beds and under glass before transplanting in the open soil, and they make free use of syringing as a method of watering. This system gives excellent results. For example in the Banat there are Russian market gardeners working in couples and hoping to make 27,000 dinars in 1922, while they have only had to lay out from 2 to 3 thousand dinars on their little holding of one hectare. It must be admitted that they worked very hard, living on their plot for whole months, and keeping guard over their watering equipment.

Market gardening is the agricultural occupation which most attracts the Russian refugees of the intellectual classes.

On this point we will make use of some descriptions of undertakings of this kind in official reports made to the Association of Russian Agricultural Experts.

A group of four Russian intellectuals, refugees living at Novo Selo, near Panchievo in the Banat were very anxious to start a market garden, but could find no land available for the purpose. They then took on a year's lease, paying a rent of 750 dinars, one hectare and a half of land in a forest clearing where there were still 380 stumps left. They proceeded to pull up these stumps themselves without any machinery. They sold them and got from that enough to pay for the work of preparing the soil. They then themselves made their vegetable beds on this plot. As the seeds purchased in the neighbourhood were of inferior quality, they were

unable to secure a return that would have repaid the trouble they had taken. They were however able to provide themselves with vegetables for the whole winter, and made a net profit of 5 to 6 thousand dinars.

The Titel market garden co-operative society, formed by eleven Russian refugees, obtained from the commune the free use of three and a half hectares of land. But the co-operative society had neither horses, implements nor money for the work that had to be done. The members of the society used for the purchase of equipment the sums granted to them by the Government for subsistence. They broke up the land themselves, and sowed maize, beans, potatoes, tomatoes, cucumbers, capsicums, etc. They then rented, on the basis of paying one third of the produce as rent, a certain extent of land, of which they devoted one hectare to the cultivation of cabbages, one hectare to melons and water-melons, then, paying one fifth of the crop, eight hectares to the cultivation of maize. As there was a considerable amount of preliminary work necessary, the Zemsky Soyus made them an advance of 8,000 dinars which they used for the purchase of two horses, a plough, a dray, a harrow, etc. Such whole hearted energy moved the commune of Titel to make them a further free gift of 5 hectares of meadow land.

This co-operative undertaking has realized a net profit of 45,000 dinars.

The results achieved the by Russian refugees who have taken up market gardening with so much success has aroused appreciation of their toil and imitation of their methods. The neighbouring market gardeners are beginning to practise syringing as a method of watering. Seeds from the Russian market gardens have already a reputation and are especially sought after.

* * *

Some refugees take up certain subsidiary branches of agriculture as well, with the help of the Zemsky Soyus. They breed poultry, keep bees etc. We will not dwell longer on this.

We may remark in conclusion that the Russian agricultural enterprises succeed particularly well when there are several within reach of each other and communication is possible. Isolated undertakings offer less resistance to the difficulties that confront the refugees in their struggle for success.

MISCELLANEOUS INFORMATION RELATING TO THE CONDITIONS OF THE AGRICULTURAL CLASSES. GERMANY.

THE LEGAL POSITION OF AGRICULTURAL LABOURERS - KIESCHKE (D. W.)
and SYRUP (DR. F.) Betriebsstatengesetz von 4 Februar 1920. Berlin, 1920 - BORNHAK
(Conrad) Grundriss des deutschen Landwirtschaftsrechts, Leipzig, 1921 - DIETZ
(C. Von) Die ostdeutschen Ländereigentümerverhältnisse seit der Revolution Berlin, 1922

The rights of agricultural labourers, as part of the rights of the general body of workers, underwent profound changes during the first days of the revolutionary government. The *Gesindeordnungen* which had acted as regulations for agricultural labourers from the beginning of the nineteenth century, were repealed by the Decree of 12 November 1918, and with them all the special laws affecting agricultural labourers, such as the enactments instituting penalties for the breaking of hiring agreements, those prohibiting united action for strikes, etc. The recasting of the rights of the agricultural labourers was brought about by a whole series of laws and decrees aiming at a complete establishment of their legal position.

1. *Decree of 23 December 1918 on Agreements as to Wage-scales, Workers' Committees, and Arbitration Committees.* — The first legislative regulations were introduced by the decree relating to wage-scales of 23 December 1918, which confined itself to determining the more urgent questions relating to the status of agricultural labourers. The regulations for workers' committees, also included in this decree, were replaced in the Spring of 1920 by the promulgation of the law on farm-councils, and those on the organization of arbitration committees were extended by subsequent decrees. We will treat briefly of these later.

The wage-scale agreements contain on the one hand regulations only important to individual farms, such as provisions for the rate of remuneration and for the hours of work, and on the other hand regulations bearing on the hiring agreement itself, and the reciprocal relations of the contracting parties, for example the solution of doubtful points in the interpretation of the agreement, the constitution of arbitrating bodies, etc. The legal binding force of the wage-scale agreements lies in the fact that the parties cannot depart from the principles laid down in them. Hiring agreements concluded without taking account of these principles are invalid. Deviations are admissible only when they are in favour of the workers and are not barred in principle in the agreement relating to wage scales. The above is compulsory for all hiring agreements which from the nature of the labour offered come under the rules. The body competent to pronounce on such obligations is the Ministry of Labour, whose decisions in this respect are final.

2. *Provisional Decree on Agricultural Labour of 24 January 1919.* — On 24 January 1919 the Provisional Decree on Agricultural Labour was

promulgated (*Vorläufige Landarbeitsverordnung*), agreed to by the National Council of Farmers and Agricultural Labourers (*Reichsbauern- und Landarbeiterrat*), containing in substance the following regulations

For agricultural and forest undertakings the provisions of the civil code as to the hiring agreement hold, supplemented by the Provisional Decree on Agricultural Labour. The maximum day's work is on an average eight hours for four months in the year, ten hours for four months and eleven hours in the remaining four months. Work done beyond these hours must be remunerated at special rates. In these hours there must be counted the time for going and coming between the house and the place of work, but neither breaks, nor, in the case of work done with animals, the time necessary for giving them their feed, are to be counted. The rate of remuneration per hour for overtime work must be at least one tenth of the day's wage of the locality, plus a 50 per cent supplement. As a rule the cash wage must be paid every week, that in kind every quarter. The dwelling houses must satisfy hygienic and moral requirements, and for married labourers must be of adequate size taking into account the number and sex of the children. In regard to labourers who are received into the farmer's family, the employer is expected, in accordance with the provisions laid down in the civil code, to make such arrangements as to living and sleeping accommodation, as to food, and as to hours of work and leisure, as may be necessary in respect to the health, morals and religion of the said labourers.

Notice may be given in the case of labour paid by the day any day for the following one, but in the case of labour paid by the week, at latest on the first working day of the week for the end of the same week, in the case of labour paid monthly at latest on the fifteenth of the month for the end of the month, and in the case of labour paid quarterly or at longer intervals only for the end of a quarter, on at least six weeks' notice. The agreement can however be dissolved by one or other of the parties without notice, if there are grave reasons, such as acts of violence, immoral behaviour, repeated delay in the payment of wages, etc. On the other hand political or trade union activity does not constitute a reason for dismissal. Referring to the Decree of 23 December 1918 it is laid down that on farms where a workers' committee is in existence a schedule of the work must be published and put up in a conspicuous place.

There followed on the provisional decree on agricultural labour several others, which however being measures connected with demobilization were only in force up to 31 March 1922 — such were the decree of 16 March 1919 to meet the deficiency in agricultural labour and the decree on the provision for the unemployed of 26 January 1920 — or which were not directly concerned with the hiring of agricultural labour, but with the general situation of the workers on the land — such were the Law of 28 June 1919 on the Agricultural Sick Funds, by virtue of which the agricultural labourers acquired the right, to the extent to which previous legislation had recognized it for industrial workers, to elect their own representatives on the Sick Funds directly instead of through the medium of representa-

tives of the communal federations. Measures relating to the rights of labour as a whole and therefore also the rights of the agricultural workers are the regulations of the Constitution of the *Reich* of 11 August 1919 (articles 124 and 159) which guarantee the right to form societies and associations for purposes not in opposition to the laws of the country, and which ensure to persons following any class of occupation the privilege of uniting for the safeguarding and improvement of their conditions of work and general economic position.

3. *The Law of 4 February 1920 on Farm Councils* — Among the various laws in respect to the rights of labour in general, the one most important for the position of the agricultural labourers is that of 4 February 1920 on farm councils. This is inspired by the guiding idea that the worker aims not only at forwarding his own interests on the farm, but endeavours to understand through his own position as a worker the economic whole of the farm, and to co-operate by his practice and his experience in the process of production. Keeping this in view, the law lays down that on all farms with a minimum of 20 hands there shall be set up farm councils which are to keep the general interests of the hands before the employer and to assist the latter in the pursuit of the ends of the farm. Where as a rule there are less than 20 but at least 10 regular farm hands, a representative spokesman (*Betriebsohmann*) must be nominated. By labourers are to be understood workers and employees, exclusive however of servants. The farm council consists of a minimum of three up to a maximum of thirty members, according to the number of hands employed.

All workers of both sexes who are fully eighteen years of age and possess civil rights have a right to take part in the election. On the other hand only those are eligible for election who have electoral rights in connection with the *Reich*, who are at least 24 years of age, have finished their apprenticeship and have been occupied in agricultural work for at least three years. The election takes place on the basis of lists of nominations, the vote being direct and secret, with proportional representation of minorities, and the period of election is one year. The farm council elects a chairman who represents it, especially in regard to the employer and the arbitration committee. The members of the farm councils give their services without remuneration, but actual out of pocket expenses are reimbursed. The meetings of the farm council are summoned by the president at his discretion, but he is expected to give notice of a meeting when requested by the employer or by one fourth of the members of the farm-council. The employer may be present at the meetings if it is summoned on his initiative or if he is invited to attend. The procedure of the farm council is regulated by the law.

The most important duties of the farm council are as follows:

1. To render assistance and advice in the management of the farm with a view to the attainment of better results, and to co-operate in the introduction of new methods of work, without however interfering directly in the farm management.

2. To prevent disturbances on the farm and to ensure the obser-

vance of laws, hiring agreements and decisions of the arbitration committees.

3. To draw up in collaboration with the employer the scheme of work, to receive complaints, and to assist in removing the cause of them.

4. To obtain from the employer information on all questions that may arise in connection with the farm.

5. To take measures against risks of accident or illness on the farm.

6. To intervene for the safeguarding of the workers' right of association.

7. To take part in the administration of the benefit institutions of the farm.

8. In respect to the fixing of wages — so far as these are not regulated by a wage-scale agreement — to act in collaboration with the workers' associations concerned, and at the same time to consult with the employer on the general principles relating to the engagement of labour. These should include provisions by which the engagement is not to be dependent on considerations of a political, military, trade union or religious kind. Within the limits of these guiding principles, the sole decision as to engagement of labour rests with the employer. In case of difference of opinion, the farm council can appeal to the arbitration committee.

9. When notice is given from the employer's side, objection may be made by the labourers within five days with appeal to the farm council.

10. In the event of the engagement or dismissal of a large number of workers being necessary, the employer is expected to come to an agreement with the farm council, if possible in advance.

The execution of all decisions jointly agreed by the farm council and the management lies exclusively with the latter.

The farm councils are planned in all their details as workers' unions safeguarding the social and political interests of the workers. But in contradistinction to the unions, the farm councils have the character of public institutions and there is no centralization of their constitution by any linking up with the whole of the section of the community following a particular occupation; they are attached simply to the farm. Thus they include all the farm labourers, whether organized or not.

4. *Arbitration Committees.* — Disputes originating in labour relations are examined and resolved by arbitration committees, representing both sides, provided by law. The regulations relating to arbitration committees are contained in various decrees published, some before and some after the promulgation of the law on farm councils.

The arbitration committees are State bodies, consisting of an equal number of representatives of employers and of labourers of the district in which the committee operates. Free choice of an impartial chairman must be made. When no agreement can be come to as to the person to be elected as chairman, a nomination is to be made by the central authority of the province, in Prussia by the president of the Government. There are no fees for procedure in the arbitration committees: the expenses connected with them are borne by the *Reich*.

The essential purpose of the arbitration committees is to bring about an agreement on questions in dispute between employers and employed. In order that the desired effect of personal persuasion on the parties may not be weakened, representation by means of lawyers is prohibited. To bring the arbitration committee into operation it is not necessary that there should be an appeal from one or the other party. When the public interest demands that steps should be taken to secure agreement, the committee can take action of itself (especially in the case of "collective disputes" between one or more employers and the joint body of the workers on a farm or in a whole branch of industry), in the interests of the regulation of the conditions of labour and especially with a view to the drawing up of an agreement on wage-scales. Certain types of "individual disputes" (that is arising between an individual employer and a labourer on the basis of a hiring agreement affecting themselves only), with which the ordinary tribunals usually have power to deal, are transferred to the arbitration committees.

In the place of the State arbitration bodies the parties can agree to set up other conciliation boards, whose competence to decide the disputes that may arise takes precedence of that of the Government bodies. In an especially important case, the Minister of Labour may take upon himself the adjustment of a dispute and may conduct the negotiations himself or may delegate them to another arbitration committee. The joint consultation of employers and employed is however necessary, equally in the case of negotiations before the Ministry of Labour, as when proceedings take place before arbitration committees.

M. T.

GREAT BRITAIN AND IRELAND.

MILKING BY CONTRACT. — *Journal of the Ministry of Agriculture*, Vol. XXIX. No. 2. London, May 1922.

A correspondent to the above journal writes :—

"Recently a large firm of dairymen, with over 400 cows on the outskirts of London, have contracted for the care and milking of their herd. Owing to the general fall in the price of agricultural products, this firm was faced with the alternative of reducing individual wages or of obtaining a greater output per man. It was finally agreed between the firm and their employees that piece-work rates for milking and tending the cows should be paid. The rate agreed to is 4s. per cow per week, and each man is now milking 16 cows as against 12 before the agreement. In addition each man has a cottage or 3s. per week in lieu, and milk. The day's work is done in two periods; the first commences at 4.30 a. m. and finishes at 9.30 a. m. During this period the cows are fed and milked, the sheds and mangers are cleaned and the animals are again fed. The second period commences about 12.30 p. m. The cows are milked at 4 p. m., after which the milk pails and churns are scalded ready for use the next morning, and the day is finished about 6.30 p. m. The farm

steward supervizes the head cowman. Milk records are taken weekly and thus careless milking is quickly detected. It is stated that the men appear satisfied with the arrangement and no falling off in the milk supply or condition of the cows has occurred. The dairy is run on town lines, *i. e.*, the cows are always housed, and when yielding below 6 quarts of milk per day they are sold for slaughter. Under the above conditions it is comparatively easy to adopt factory methods, but in country herds it would appear much more difficult to arrange an efficient system."

W. E. H. L.

LAND SYSTEMS

MISCELLANEOUS INFORMATION RELATING TO LAND SYSTEMS.

FRANCE.

THE CONSOLIDATION OF HOLDINGS IN THE DEVASTATED REGIONS — *L'Economiste Français* Paris, 22 July 1922.

The long duration of the hostilities and the intensity of the fighting on the western front rendered it extremely difficult in many cases, at the end of the War, to recognize on the land the former boundaries of the holdings. As a result it was often less tedious and less costly to consolidate the holdings than to restore their boundaries. This was the principle underlying the Law of 4 March 1919, according to which, when in the territory of a commune, the boundaries of the lots of land not built upon have been obliterated or confused, the prefect can, after consultation with the mayor, issue an order to proceed with the redistribution of the holdings. For this purpose, a Communal Committee for the Redistribution of Holdings is first formed, consisting of eleven members, of whom six are landowners. This committee can request that a new distribution should be made. The request is submitted to a Departmental Committee for the Redistribution of Holdings, the chairman of which is a magistrate and which consists of twelve members, including nine landowners. On the advice of this Committee, the prefect orders the redistribution, indicating the lands to which it is to apply.

We noted last year the happy results which followed from the application of this law in the department of the Somme (1). A recent report of the prefect of this department shows how the work had progressed up

(1) *International Review of Agricultural Economics*, November 1921, page 608.

to 1 April 1922 and contains at the same time some valuable remarks on the results of the consolidation from the agricultural point of view.

On 1 April 1922 the holdings had been consolidated in thirty communes, of a total area of 21,287 hectares. Excluding those portions of the area which, in each commune, are excluded from the consolidation (land covered by buildings, etc.), the operations affected 16,034 hectares and produced the following results: the total number of parcels of land was reduced from 45,560 to 9,463; the average area per parcel was increased from 37 ares to 179 hectares. The number of owners affected by the consolidation being 5,252, the average number of parcels per owner was reduced from 8.67 to 1.8. These general figures show at a glance the importance of the results obtained. It may be added that they have given complete satisfaction to the parties concerned. Of the 30 communes in which consolidation had taken place, there were 15 in which the period for making claims had expired and in these 15 communes only 25 out of 2,072 owners affected, or 1.2 per cent., had appealed.

At first it was necessary to combat a wide-spread prejudice of the peasants, the fear, that is, lest the redistribution should be more favourable to the large owners than to the small owners. This prejudice is the result of a mere optical illusion; because the parcels are larger it is imagined that there will be fewer small owners. But obviously there is no ground for this fear; the number of owners is not reduced; it remains precisely the same, but the property of each of them is consolidated instead of being scattered.

The small owners, then, are in no way injured. On the contrary, it is endeavoured to give to the small cultivator parcels of lands on the outskirts of the village, and sometimes even adjacent to his garden, which is a valuable convenience to the agricultural labourer who wishes to employ the few minutes which remain to him at the close of his day's work. This is all the more easy to carry out as the larger owners prefer, on the contrary, to receive parcels farther away from the village, in order not to be troubled by neighbours and by the small thefts which are inevitable in the immediate vicinity of the village. Thus each has every likelihood of obtaining what he most wishes; the different positions of the parcels can be adapted to different needs.

But if, at present, the interests of the small owners are safeguarded, will not the formation of small holdings be rendered more difficult in the future? If the parcels are larger they will become, for that reason, less easily acquired by men of small means. An agricultural labourer will less readily find a plot of land to buy.

This fear is greatly exaggerated. The Report shows by some actual examples, that there still remain enough small parcels which can be acquired by agricultural labourers. Besides, in their own interest it is better for them to make less frequent but larger purchases. Often agricultural labourers form out of their savings a small property built up by the successive purchase of tiny plots for which they pay very dear. They regret it afterwards, when it is too late. With a little patience they would

have been able to take advantage of a favourable opportunity of purchasing a suitable holding. The consolidation thus seems to be in the true interest of those who aspire to become small owners. In reality the persons who acquire small parcels have every interest that they should be conveniently cultivable and of easy access.

The Report also deals with another question, much the most important: what may be estimated to be the saving effected in the cultivation of a property by its consolidation? On this subject the Report contains some observations which are particularly instructive.

Of the 30 communes in which the consolidation was carried out, there are only 13 in which the owners entered into occupation of their new parcels in October 1921. It is only in these communes that the cultivators have been able to experience the pecuniary advantages of the consolidation. As yet the experience is only partial as it does not relate to the complete round of work carried out in the course of the agricultural year. But it is sufficient to show the threefold saving of time, labour and money which has been obtained. The following are typical examples.

1. *Saving of Time.* — Two parcels, one of 74 ares and the other of 28 ares, situated 1,200 metres apart, were consolidated into a single parcel; the time required for ploughing, as the owner admits, is reduced by a fifth. Twenty-eight parcels have been consolidated into a single parcel. Result: the ploughing has been carried out at the rate of 60 ares per day instead of 40.

2. *Saving of Labour.* — If the work can be done in less time, the number of workers can be reduced. The Report mentions cases of farmers who have been enabled by the consolidation to dispense with one or even two farm servants. It may be added that as the supervision will henceforward be rendered easier, the productivity of paid labour will be greater.

3. *Saving of Money.* — The saving of labour necessarily implies a saving of money. A farm servant less to pay and to feed represents for the farmer a gain of several thousand francs at the end of the year. Often, too, the consolidation has enabled a farmer to dispense with a horse. If we consider the expense represented by the purchase of a horse, the cost of feeding and shoeing it and the up-keep of the harness, without taking into account the risks of accidents or of death, we may conclude that the advantage which results from dispensing with a horse is no less than that which results from dispensing with a farm servant.

We may add to the foregoing the saving in the implements, which no longer have to undergo the wear and tear of constantly going backwards and forwards over bad roads; the saving of seed and fertilizers resulting from the reduction in the number of stopping-places, and a number of other small savings of which the farmer does not always take sufficient account because he only notes them singly, but the sum of which, expressed in terms of money, becomes very striking.

The Report thus concludes: "It seems to result clearly from these data that the effect of consolidating the parcels may be expressed, ac-

according to circumstances, by a figure which varies between the rent of the land and three times that sum." The reader will not fail to observe the importance of this conclusion.

M. B.

MISCELLANEOUS QUESTIONS

FRANCE.

THE DISTRIBUTION OF ELECTRIC ENERGY IN THE COUNTRY DISTRICTS.

OFFICIAL SOURCES:

- LOI DU 13 NOVEMBRE 1917, MODIFIANT LA LOI DU 5 AVRIL 1884 COMPLÉTÉE PAR LA LOI DU 22 MARS 1890 SUR LES SYNDICATS DES COMMUNES
LOI DU 15 JUIN 1919 SUR LES DISTRIBUTIONS D'ÉNERGIE ÉLECTRIQUE.
DÉCRET DU 25 MARS 1922, INSTITUANT UNE COMMISSION INTERMINISTÉRIELLE CHARGÉE D'ÉTABLIR UN PROGRAMME DE LA DISTRIBUTION DE L'ÉNERGIE ÉLECTRIQUE DANS LES CAMPAGNES.

OTHER SOURCES:

- DUPERRIER: L'électricité rurale *Bulletin de la Société des Agriculteurs de France* Paris, March 1921 and supplement to the Bulletin of May 1922
DELAMARRE (Ach.): L'électrification dans les campagnes. *Journal d'Agriculture pratique*. Paris, 16 and 24 June 1922.

The general employment of electricity in the rural districts is one of the surest means of improving agricultural conditions and increasing agricultural production.

The agricultural labour crisis constitutes a real danger in France where the War left wide gaps in the ranks of the field labourers and to meet this danger a prompt remedy has to be found. Electric power is being summoned in many cases to supply the deficiency of labour.

Leaving aside the employment of electricity for tillage purposes, hardly yet a practical question, electric energy is capable of being readily employed in threshing corn, in pumping water for irrigation or for drinking purposes, in the working of dairy apparatus, in sawing timber, as well as in working many of the appliances in the farm-house. Electric motor power can also be used to advantage in agricultural co-operative undertakings formed with a view to the manipulation of farm products,

such as milling, butter-making, cheese-making, oil-mills, wine-making societies, distilleries, etc.

Finally, electric lighting will furnish farmers with what is as indispensable as power, for light must be considered as a real implement of labour. The command of a strong light without risk of fire will allow farmers' families to carry on occupations during the long winter evenings and will ensure the development of the small rural industries which bring an appreciable addition to the resources of country dwellers.

§ I. THE DIFFICULTIES OF THE PROBLEM.

Unfortunately the electrification of country districts involves immense difficulties, especially in connection with the poor return produced by the investment of capital in electric distribution schemes for agriculture. According to the remark of an engineer of special experience in this respect, M. Ach. Delamaire, there is no more undesirable client for the supply station than the farmer and for two reasons:

1. The farmer employs unnecessarily powerful machinery for a very small number of hours per year, whereas he could make use of less powerful machines working for a longer time. For example, if a root-cutter of three horse-power runs for half-an-hour a day, the supply station is obliged to keep available at the works the three horse-power, and to make lines for transmitting it to the farm, etc., and this for 150 hours a year. If the root-cutter were of one-horse power, the Central supply station would only have to generate a power three times less, and make transmission lines three times less strong, and the current would be used for 450 hours instead of 150. For it may be taken that the higher is the coefficient of annual utilization, that is the quotient of the total power supplied annually divided by the number of hours of working, the lower the net cost of the energy can be brought. But a manufacturer easily uses power for 1,000 to 1,200 hours per annum: the supply station will therefore much prefer to sell its units of horse-power to manufacturers than to agriculturists, in so far as these latter, however they transform their implements, will not arrive at using the same amount of power as the manufacturers.

2. The farmer uses the current irregularly. Some days, for example in fine weather, the consumption of power is nil, because everyone is in the fields: but if it rains the next day, everyone begins threshing and the demand for electricity reaches its maximum. Unfortunately, there is in practice no really satisfactory remedy for this, since in farming the distribution of work depends not on human will, but on the weather factor exclusively.

From these two facts it results that the large distributing companies, which have already had difficulty in finding the necessary capital for their normal working, serve by preference the manufacturing districts, which give them a better immediate return, and that the agriculturists

have to count on themselves and will have to do so for a long time for installing and working the plant they need. The bodies administering agriculture and the department of rural engineering have endeavoured to give them assistance. They have examined, revised, or have drawn up the schemes, and have facilitated their execution by the grant of loans or subsidies. But the accomplishment of these schemes raises complex and delicate questions involving other departments than those of the administration of agriculture. Concessions for and inspection of large undertakings for distributing electric energy come within the powers of the Office of Public Works: the creation of communal syndicates, the type of association which seems to be for France the one best fitted to ensure the establishment of intercommunal systems, cannot come about without the consent of the Minister of the Interior, and it is his business too to exercise control over the estimates of the departments and communes that are called on to share in the expenses of installing and maintaining these systems: finally without the co-operation of the Ministry of Finance it is impossible to raise the funds necessary to enable the Ministry of Agriculture to subsidize adequately the schemes for distribution of electric energy in the rural districts. Consequently the procedure involved for agriculturists anxious to procure a distribution of electric energy is long and complicated. The Government has thus lately decided to draw up a comprehensive programme and to endeavour to find financial expedients likely to ensure its execution. With this intent a decree of 25 March 1922 has set up an Interministerial Committee which is to study the question in all its aspects. Possibly this measure has been inspired by the success of the experiment we are now about to describe.

§ 2. ELECTRIFICATION IN EURE-ET-LOIR.

This experiment has been undertaken on the initiative of M. Duperrier, Chief Engineer of Roads and Bridges of Eure-et-Loir. In two communications made to the Farmers' Society of France he has explained both the difficulties attending it and the means of putting it into practice. We could not have a better exponent.

The question was one of electrifying agricultural lands of 450,000 hectares in extent, covering the districts of the Perche and the Beauce of Eure-et-Loir which are reckoned among the principal wheat-producing areas of France.

The study of the problem was made under four heads: production, transmission, distribution and consumption; we will examine them briefly.

1. *Production.* — Eure-et-Loir being without water-power or facilities for the supply of coal, it was necessary to come to terms with a generating station which has been installed at Aube (Orne) for the delivery of 20,000 kilowatts and the supply of part of the three departments of Orne, Eure, and Eure-et-Loir.

2. *Transmission.* — The system of transmission is the part of the

work which the departmental authorities have taken up. They link with the generating stations communes and groups of communes who are consumers of electricity but whose geographical position and financial resources do not allow of making a direct connection. With this intent the department subsidizes, in a way we shall shortly describe, the Company that has undertaken to apply to the State for the concession of the new system.

This latter consists of a three-phase alternating current *feeder* at the high tension of 60,000 volts, which will bring the energy from the works as far as Tillières-Bérou in the valley of the Avre, to a large station where the tension is reduced from 60,000 to 30,000 volts, whence will be supplied the valley of the Avre from Verneuil on the east to Dreux on the west, the district of Evreux on the north and the department of Eure-et-Loir on the south. From Tillières-Bérou the transmission system will reach, with a tension of 30,000 volts, the rural districts that are awaiting it, throwing off a branch to the right for the supply of the Perche, and spreading out to the south of Chartres into three horns which will carry the energy eastwards, towards the south-east, and southwards. The whole system from Aube to the end of these horns covers 165 kilometres.

The system is planned for a delivery of 5,500 kilowatts, 5,000 being for agriculture. It will entail an outlay of nearly seven million francs, out of which the department of Eure-et-Loir is pledged for a share of 4,400,000 francs.

Remuneration for this capital will be provided by a charge made to the consumers, at the rate of two centimes a kilowatt supplied at the 30,000 volt tension and of 20 francs per kilowatt installed. The departmental administration remains at liberty to reduce the charge when the receipts allow.

3. *Distribution.* — The distributing system covers 400 communes and is the most difficult part of the undertaking, and the most important from the financial point of view, since it must involve an outlay of 46 million francs. It could not have been contemplated by separate communes or small groups of communes. That simple form of grouping which may be satisfactory in the valleys or in rich districts would certainly have left out of count the communes of the table-lands. There was already in existence a co-operative society founded in 1912 forming a group of 20 communes. The rest of the territory has been divided into seven great intercommunal syndicates, each including from 20 to 70 communes, with an area of from 50 to 100,000 hectares and a population of from 25 to 50,000 inhabitants. In each of these areas the system, fed from a transmission sub-station, will be divided into distribution sections overpassing the communal boundaries, making the best possible use of means of communication of every kind, disregarding local demands of an exaggerated sort, and thus forming a carefully traced net work which can be taken advantage of under the most economical conditions.

We will deal in order with the intercommunal syndicates and with the co-operative agricultural society of Rosay-Prouais.

I. — Three large intercommunal syndicates including respectively 29, 37 and 52 communes have been authorized three others are finishing their preliminary survey, and a seventh held its first preliminary meeting on 11 February 1922.

The three authorized syndicates include respectively two, three and four administrative cantons, in which 72 per cent. of the communes, that is 117 out of 162, are definitely members and have voted the important subventions required of them. These communal subventions amount in all to 6,760,000 francs for an area of 158,000 hectares, of which 127,000 hectares are arable land. The draft estimates of the operations reach the figure of 13,360,000 francs, on which the State has granted in the case of two syndicates a subsidy of one third of the actual expenditure incurred under the inspection of engineers of the civil engineering department. The third syndicate is applying for a similar subsidy. The department of Eure-et-Loir is granting a subsidy of 70,000 francs to each of the three syndical sub-stations, besides supplying the transmission lines.

In accordance with the law, the communes of Eure-et-Loir in the course of the year 1921 passed resolutions in the same tenor voting their available resources, that is 52 per cent. of the total outlay, as well as adopting the standing orders of the syndicate. These are as follows:

" 1. The Syndicate of the rural communes of the cantons of . . . has in view the distribution of — and it expedient the production of — electric energy for all purposes in the area of these communes, and, if expedient, also in the neighbouring ones.

" It takes the name of the Intercommunal Electric Syndicate of . . .

" 2. It includes all the rural communes of these cantons and if necessary any neighbouring communes situated in Eure-et-Loir which conform or shall conform to the present regulations.

" 3. The Committee of the Syndicate is composed of ordinary members of the districts of the said cantons and of delegates elected by the municipal councils of the adherent communes in accordance with the provisions of the law, three delegates for the communes where the municipal council consists of more than 12 members, two delegates for those whose council numbers 12 members, and one delegate for communes where the council is less than 12 members.

" 4. The duration of the syndicate is fixed at thirty years. If expedient it will be prolonged for a period to be decided.

" 5. The headquarters of the syndicate are fixed at . . .

" The syndicate receiver who may be a municipal or a special receiver is chosen by or presented for the nomination of the administration by the Committee of the Syndicate.

" 6. The Syndicate guarantees the completion of all works, operations and legal procedure necessary to the construction and employment of the syndical electric system in accordance with the laws, decrees and regulations in force.

" It exercises all rights and powers conferred by the laws and regulations relating to the distribution of electric energy.

" It makes charges on the sale of electricity proportionate to the quantity of energy sold, and divides the payments between the associated communes, after deduction, if expedient, of the whole or part of its expenses and cost of working.

" 7. Each commune belonging to the Syndicate shares in its working expenses at so much in the franc of the communal rate (1).

" The commune, besides, contributes to the construction of the syndical electric system — and to the additional work involved in the first installation up to a limit of 15 per cent. of such work — by a subvention proportionate to the value of its communal rate.

" 8. The commune leaves in the hands of the Syndicate the cost of inspection and all taxes and dues, especially those on occupation of the public lands. . .

" 9. It receives from the Syndicate a contribution proportionate to the subventions it has paid."

Article 7, paragraph 2, has been the occasion of a disagreement: several syndicates considered that the subvention of each commune ought to be proportionate to its area and its population, and they requested that half the subventions should be regulated in the proportion of these two factors, geographical and ethnographical. In practice, this arrangement, which seems a more satisfactory basis than the proportion of the communal rate, especially in communes owning meadows or other lands in common, is not without serious inconveniences. In the case of refusal on the part of one or more communes, and consequent alteration of the partition coefficients, the subventions are all modified, some becoming larger, some smaller, thus entailing fresh decisions and several months' delay. Besides, the number of centimes to be voted, according to article 7 above, is the same for each commune. It is a uniform obligation readily understood by each commune, while the want of uniformity arising out of difference of area is freely criticized. In short the simplest formula is the best.

Article 9 provides for contributions to the communes in proportion to the subventions made. These contributions are intended to cover the yearly interest on the loans made by the communes taking part, at least until things are established on a normal footing, perhaps after ten years' working. In this way, except for the first decade, always the most difficult to get through, the contributions levied on the communes for construction will be covered by the proceeds of the system, which will itself remain the security and the property of the group of communes.

The meetings at which the three syndicates were formed took place on 9 July 1921, 1 October 1921 and 10 January 1922. The organizing committees were replaced in each group by the syndical committee, its office, its officials (secretary and treasurer receiver) and its Works and Finance Committees. As the three organizing committees were formed

(1) That is to say in a proportion of the share of the direct taxes collected for the benefit of the commune.

in the course of the months of July and August 1920, the organization of each syndicate took 15 months on an average. The principal reason for this dilatory procedure was the sluggish working of the administrative bodies of the numerous small rural communes concerned, due less to their personnel than to the inevitable inertia of isolated bodies working only at intervals.

By the terms of the Law of 15 June 1906 on the distribution of electric energy, communes or syndicates of communes have a choice only between concession and, in default, direct administration. Concession is a delegation of public enterprises for a long period, 30 or 40 years, to a private business company, co-operative society or one of collective agricultural interest. Direct administration is the method of carrying on the undertaking by the syndicate without delegation, except as modified by sub-contracts by which the administration farms out such and such a part of the undertaking to a private company. As a matter of fact, the three syndicates pronounced for direct administration, always reserving the power of handing over some part of the undertaking by contract or temporary agreement on suitable terms.

The resolutions voting the communal subventions have been passed and the first instalment of the centimes voted is being collected, while the loan agreements are at the same time in course of realization.

After several attempts, a technical service has been formed in each of the syndicates. As provision has been made for the schemes to be drawn up by the Company in charge of the construction and afterwards of the working, a single engineer for each syndicate meets the case: under the superintendence of the Department for Rural Engineering, he will ensure the soundness of the schemes (*e. g.*, the calculations of the sections of the main, the sites for transformers and their power, etc.): he will overlook the execution of the schemes, and later the organization of the working by the companies managing or contracting, judging by the working of the different stations.

The tension of the distribution system adopted by the syndicates is that of 15,000 volts. The power will be supplied in an alternating-current at 30,000 volts to the syndical or intersyndical sub-stations whence the feeders at 15,000 volts will transport it to towns, villages and farms to be served. There transformers will be installed for reducing the tension and beyond them the low tension systems will supply subscribers for light and low electric power (up to 5 kilowatts) within a radius round each transformer of 800 metres for power, and of 1,600 metres for light.

The total of the system contemplated for each syndicate is 570 kilometres at high tension and 370 at low tension. Provisions is made for 203 transformers of from 5 to 50 kilowatts of power.

II. — Events have taken a different turn in the case of the twenty communes grouped on a co-operative basis round the centre of electrification provided by the agricultural co-operative society of Rosay-Prouais, founded in 1912. The new co-operative society, founded 20 May 1921,

serves an area of 15,000 hectares of arable land, taking in a population of 6,700 inhabitants. In a few weeks it had at command from 5 to 6,000 francs, supplied by the co-operators, and it began without delay to make surveys, initiated its administrative procedure and the first plant. It was expected that the whole of the net-work of the 20 communes would be completed last July. It consists of 80 kilometres of high-tension line, and 82 kilometres of low-tension line, and 32 public transformers of from 10 to 50 kilowatts in stone huts. The total cost of the first installation including the meters amounts to two million francs, to meet which the society has applied for a long term loan of about a third of the sum from the regional agricultural credit bank.

By degrees the transformers for public use will be supplemented by private transformers of farms supplied with high-tension current

The new co-operative society has taken its place in each of the communes of its area on the basis of municipal concession. In respect to the communes granting the concession the society had the choice between 20 municipal concessions and one syndical concession, which would have been granted by the communes jointly. The grouping of the communes into a syndicate did not seem necessary at the moment, since practically all the inhabitants are co-operators, and so the association of interests and a common outlook are secured by the society. In this way administrative procedure is reduced to a minimum.

The same reason has governed the choice of the concession system in preference to that of direct municipal administration. The principal advantage of direct municipal administration is that the authority in which the power of concession is vested is left with the control of the scale of charges and with the advantage of the profits accruing from them: but if the communes in granting concessions alienate these advantages, the co-operative agricultural society from its very nature recovers them for the benefit of the co-operators who are also the consumers.

The working of the electric system, still in its initial stages as regards extensions, is carried on by the officials of the co-operative society, including an expert manager and a repairing gang, a secretary who keeps the books and assists the management committee, a treasurer and three receivers who take note of the meters and collect the sums due. The sale of energy is, however, the only operation contemplated by the society. Special undertakings have been handed over to bodies which are in process of organization. Already five agricultural co-operative societies have extended their operations to electric threshing of grain. Six landowners or tenants who cultivate altogether 250 hectares of deep plough land which can be dealt with by electric machinery of average power each year are forming an electric ploughing society. An electric bakery is at work in two of the communes. The society's pre-war barley mill will be managed by a local co-operative society. One of the communes has just installed a pumping plant for filling the communal reservoir, to work at night from 11 p. m. to 4 a. m., a reduction of 30 per cent. being made on the usual tariff. Each of these bodies buys the energy from the main society which has

obtained the concession, and undertakes all the details of the working of the plant.

4. *Consumption.* — The probable consumption of the principal known applications of electricity to farming, reckoned per hectare of arable land in a normal district — that is to say after the installation of the machinery on each farm — may be calculated as follows :

Light (10 kilowatts per person, and one person for every two hectares of arable land electrified)	5 kilowatts
Threshing and sorting of grain (12 quintals per arable hectare)	10 kilowatts
Baling of straw	3 kilowatts
Feeding of live-stock (crushing, grinding, root-cutting, watering, etc.)	3 kilowatts
Household work (churns, drying machines, hot plates and irons, wood-saws, ventilators, radiators, water-heaters, etc.)	3 kilowatts
General farm purposes (pumping, transport, hoists, presses, watering of garden, etc.)	2 kilowatts
	<u>26 kilowatts</u>

The work which is being carried out in Eure-et-Loir has in a measure come about as a result of the war. The initiator of the scheme, M. Duperrier, was during the war in charge of the gangs for motorculture in Eure-et-Loir, when he proved that it is almost impossible to make the agricultural labourer into a driver, while he can always set an electric motor going. On the other hand, M. Duperrier noticed that the consumption of a tractor is 60 per cent. more at least than the consumption guaranteed by the maker : this is due to the incompetence of the driver, or to the loss or theft of petrol, or to the evaporation of the petrol while in store. M. Duperrier came to the conclusion that it would take one whole train per day to transport to Eure-et-Loir the petrol necessary for supplying the 30,000 tractors required for the cultivation of that region by machinery. The replacement of such a retinue by an electric cable was a conclusion that naturally followed, for it at the same time disposed of the question of packing, one quite as harassing as that of transport : whatever means of transport may be employed it would not go right up to the tractor in the fields : packing was always necessary with the accompanying inconveniences ; labour of emptying and filling, loss of petrol, loss of packing material, etc. M. Duperrier's great achievement was that he imparted his own conviction to the peasants, and more than that he impressed on them a sense of joint responsibility which became more and more definite, till their conviction was translated into practical decisions. In the syndical committees, we are told, 60, 75, 80 mayors and delegates listen attentively

to the explanations ask for further explanations and insist upon having them, discuss, and then pass unanimous resolutions. In the co-operative society, at present numbering 900 members, from 250 to 300 attend the annual meeting, all full of enthusiasm, of one mind as to the resolutions before them, convinced of the necessity of a strict weeding out after the different solutions before them have been submitted to free examination

This is a remarkable result showing to what an extent in a short time the centuries-old individualism of the rural population has given way before a clear conception of interest. No doubt the electrification scheme which the Government proposes shortly to put before the whole country will meet with like support on all sides.

M B.

THE INTERNATIONAL INSTITUTE OF AGRICULTURE

ORIGIN OF THE INSTITUTE AND SUMMARY OF THE INTERNATIONAL TREATY

The International Institute of Agriculture was established under the International Treaty of 7 June 1905, which was ratified by forty governments. Twenty-two other governments have since adhered to the Institute.

It is a Government institution in which each country is represented by delegates. The Institute is composed of a General Assembly and a Permanent Committee.

The Institute, always confining its attention to the international aspect of the various questions concerned, shall :

(a) collect, study and publish as promptly as possible, statistical, technical, or economic information concerning farming, vegetable and animal products, trade in agricultural produce, and the prices prevailing in the various markets ;

(b) communicate the above information as soon as possible to those interested ;

(c) indicate the wages paid for farm work ;

(d) record new diseases of plants which may appear in any part of the world, showing the regions infected, the progress of the diseases, and if possible, any effective remedies .

(e) study questions concerning agricultural co-operation, insurance and credit from every point of view ; collect and publish information which might prove of value in the various countries for the organization of agricultural co-operation, insurance and credit ;

(f) submit for the approval of the various governments, if necessary, measures for the protection of the common interests of farmers and for the improvement of their condition, utilizing for this purpose all available sources of information, such as resolutions passed by international or other agricultural congresses and societies, or by scientific and learned bodies, etc.

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3	BELGIUM	IV	O. BOLLE.
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54	ROMANIA	I	
55	RUSSIA	I	
56	SAN MARINO	I	
57	KINGDOM OF THE SERBS, CROATS AND SLOVENES.	III	
58	SPAIN	I	
59	SWEDEN	IV	
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PRINCIPAL WEIGHTS, MEASURES AND MONEY OF THE VARIOUS COUNTRIES AND THEIR BRITISH EQUIVALENTS

1 Cadastral arpent (Hungary)	=	1.42201	acres
1 Centimetre	=	0.393715	inches
1 Cho (60 ken) (Japan)	=	119.30327	yards
1 Crown 100 heller (Austria-Hungary)	=	10 d.	at par
1 Crown (100 ore) (Denmark, Norway, Sweden)	=	15.1 $\frac{1}{16}$ d.	at par
1 Deciatine (2 tcheiwert, (Russia	=	2.69966	acres
1 Dinar, gold (100 para) (Serbia)	=	933/64 d.	at par
1 Dollar, gold (\$) (100 cents) (United States)	=	48.5 $\frac{5}{16}$ d.	at par
1 Drachm, gold (100 lepta) (Greece)	=	933/64 d	at par
1 Egyptian Kantar	=	99.0498	lbs.
1 Feddan Masri (24 Kirat Kamel) (Egypt)	=	1.03805	acres
1 Florin, gold, or Gulden (100 cents) (Netherlands)	=	15.733/64 d.	at par
1 Franc (100 centimes) (France)	=	933/64 d.	at par
1 Gramme	=	0.03527	oz.
1 Hectare	=	2.47109	acres
1 Kilogramme	=	2.2	lbs.
1 Kilometre	=	1093.613	yards
1 Kokon (10 To) (Japan)	=	1.58726	quarts
1 Lei, gold (100 bani) (Rumania)	=	9 $\frac{83}{64}$ d.	at par
1 Leu (100 stotinki) (Bulgaria)	=	933/64 d.	at par
1 Lira (100 centesimi) (Italy)	=	933/64 d.	at par
1 Litre	=	{ 0.21998	gallons
		{ 0.0275	bushels
1 Mark (100 Pfennige) (Germany)	=	11 $\frac{3}{4}$ d.	at par
1 Mark (100 penni) (Finland)	=	933/64 d.	at par
1 Metre	=	3.28084	feet
1 Milreis, gold (Brazil)	=	28. $2^{\frac{61}{64}}$ d.	at par
1 Milreis, gold (Portugal)	=	48. $5^{\frac{19}{64}}$ d.	at par
1 Peseta, gold (100 céntimos) (Spain)	=	933/64 d	at par
1 Peso, gold (100 centavos) (Argentina)	=	38.1137/64 d.	at par
1 Peso, paper (Argentina)	=	18.8 $\frac{13}{16}$ d.	at pa
1 Pound, Turkish, gold (100 piastre) (Ottoman Empire)	=	188.0 $\frac{15}{64}$ d.	at par
1 Pund (Sweden)	=	0.93712	lbs.
1 Quintal	=	1.96843	cwt.
1 Rouble, gold (100 kopeks) (Russia)	=	28.1 $\frac{3}{8}$ d.	at par
1 Rupee (16 annas) (British India)	=	$\frac{1}{10}$	of £1 (gold)
1 Talari (20 piastre) (Egypt)	=	48.1 $\frac{1}{32}$ d.	at par
1 Verst (Russia)	=	1166.64479	yards
1 Yen, gold 2 fun or 100 sen) (Japan)	=	28.037/64 d.	at par
1 Zentner (Germany)	=	110.23171	lbs.

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INTERNATIONAL REVIEW
OF AGRICULTURAL ECONOMICS

(MONTHLY BULLETIN
OF ECONOMIC AND SOCIAL INTELLIGENCE)

Co-operation and Association

ITALY.

AGRICULTURAL CO-OPERATIVE PURCHASING SOCIETIES.

SOURCES :

LE SOCIETÀ AGRARIE DI ACQUISTO IN ITALIA FINO AL 1910. SECONDO ANNUARIO 1911 FEDERAZIONE ITALIANA DEI CONSORZI AGRARI. Milan, Bassi e Vaccari, 1911.

I CONSORZI AGRARI COOPERATIVI ITALIANI E LE SOCIETÀ AFFINI NOTE STATISTICHE: 1910-1920. FEDERAZIONE ITALIANA DEI CONSORZI AGRARI, Piacenza, 1921.

L'ORGANIZZAZIONE E L'ATTIVITÀ DELLA FEDERAZIONE ITALIANA DEI CONSORZI AGRARI. Piacenza, 1921.

STATUTO DELLA FEDERAZIONE ITALIANA DEI CONSORZI AGRARI.

LISONE (Sebastiano) : Grandiosi risultati della cooperazione agraria in Italia. Il trentesimo anniversario della fondazione della Federazione Italiana dei Consorzi Agrari. In: *Cronaca Agricola*, No. 6. Turin, 31 March 1922.

The joint purchase of raw materials and of agricultural requisites — one of the most important branches of co-operation — is carried on in Italy by different types of societies : associations of a technical nature, agricultural unions, rural banks, and agricultural consortia.

The most important of these groups is the one consisting of the agricultural consortia, the development of which is in close connection with the importance assumed by the employment of machines and of chemical fertilizers in agriculture. These consortia are organized in the form of co-operative societies with limited liability usually with an area of operations restricted to a single district (*circondario*). Their purpose is to purchase directly either individually, or in association with other societies or through the medium of their federation, all raw materials and means of production necessary locally for the carrying on of agriculture, exercising at the same time strict supervision, so as to guarantee the quality

of the goods to the members who purchase them. The Italian Federation of Agricultural Consortia, which groups the greater number of the consortia and the kindred bodies, acting as a large centre for the supply of the affiliated organization and for the bulking of their orders, has lately published a year book containing copious statistics which give a clear and precise idea of the progress achieved by this groups of bodies in the last decade, of the work carried out, of the steady widening of their field of action in response to the development of the national agricultural industry. The previous enquiry of the same kind conducted by the Federation dates back to about ten years ago. We will here set out, making use of the publication referred to, the figures and the information necessary to indicate the position reached by the agricultural co-operative consortia in 1920, with a view to illustrating the contribution they have made since the previous enquiry to the growth of Italian agriculture.

§ I. THE AGRICULTURAL CONSORTIA AND KINDRED BODIES
IN THE DECADE 1910-1920.

To emphasize the development of agricultural co-operative consortia and of societies of similar scope it is convenient first to institute a comparison between the data of the two enquiries relating to some essential factors, such as the number of members, the share capital and the reserves, and the sales effected. Such a comparison is shown in the following table :

TABLE I. — *Members, Share Capital and Reserves, Sales.*

	1910	1920
Societies and institutions affiliated to the Italian Federation of Agricultural Consortia :		
Societies with objects which are mainly economic	450	589
Societies and institutions for propaganda or credit	151	320
Total number of affiliated societies and institutions	601	909
Number of these societies and institutions which furnished returns and to which the statistics relate	420	539
Members	124,848	312,590
	Liras	Liras
Share capital	9,689,224	30,286,278
Reserve funds	3,708,355	20,051,298
Sales	80,957,984	808,938,939

It may be noted that there has been a large increase in the number of the members in all the institutions, but in particular in the large consortia the operations of which cover an entire province. The figure of 312,590 members in 539 consortia or bodies of another type but with the same objects does not really represent the full number of agriculturists grouped in co-operative organizations, since many consortia count as single members societies which in their turn comprise large groups of cultivators.

Equally remarkable is the growth of the share capital, of the reserves and of the sales of goods. The value of these has practically increased tenfold from 1910 to 1920, but it must be noted that the high level reached by prices of agricultural requisites has affected this new figure to a considerable degree.

For goods sold the following comparison may be instituted.

TABLE II. — *Goods Sold by the Agricultural Consortia in 1910 and in 1920.*

Goods	1910	1920
	Quintals	Quintals
Phosphate fertilizer	4,828,126	4,912,347 (1)
Nitrate fertilizer	303,551	675,848 (2)
Potash fertilizers	78,394	38,024
Spraying materials	287,036	871,089
Seeds	203,137	726,806
Feeding stuffs	317,161	1,620,899
Fuel	—	313,230
Food stuffs	—	504,298
	Liras	Liras
Machines	5,516,238	34,280,549

If we keep in mind that the decade covers the period of the War, and that in 1918, the last year of the War, and in 1919, the first year of peace, the lowest point was touched of the crisis of production, transport and distribution of chemical fertilizer — phosphates, nitrates and potashes — it is possible to explain the small increase in the consumption of certain agricultural requisites and the large development in other directions from 1910 to 1920.

Some forms of activity of the agricultural consortia deserve to be especially singled out for notice. For example, the co-operative superphosphate factories, belonging to agriculturists or groups of consortia, the impulse given to the supply of spraying materials, of selected seeds, of concentrated feeding stuffs, of food stuffs for the rural population, and of agricultural machines.

(1) This figure includes 4,671,095 quintals of mineral superphosphates.

(2) This figure includes, besides mineral nitrate fertilizers, also 141,768 organic nitrate fertilizers of which account was not taken in the statistics of 1910.

The Co-operative Superphosphate Factories — The provision of superphosphate represents one of the principal forms of activity of the agricultural consortia. All the consortia act as organs of distribution of phosphate fertilizers to farmers, but the more important ones, especially in Northern Italy, have created as a direct branch of their activity or in the form of subsidiary societies, 20 co-operative factories of superphosphate.

The production of these in 1920 was about 1,400,000 quintals, but their normal productive capacity, as appears from the following table, may touch the figure of about 2,775,000 quintals per annum.

TABLE III. — *Annual Productive Capacity of the Co-operative Superphosphate Factories.*

Co-operative superphosphate factories	Annual productive capacity Quintals
Vercelli	300,000
Secugnago (Milan)	250,000
Portogruaro (Venice)	250,000
Ravenna	180,000
S. Elpidio a Mare (Ascoli Piceno)	160,000
Cremona	150,000
Montebelluna (Treviso)	140,000
Soresina (Cremona)	140,000
Piacenza	140,000
Novara	120,000
Mantua	120,000
Milan	120,000
Casteggio (Pavia)	120,000
Cerea (Verona)	120,000
Lendinara (Rovigo)	100,000
Adria (Rovigo)	100,000
Fossano (Cuneo)	90,000
Bagnolo Mella (Brescia)	85,000
Melegnano (Milan)	50,000
Legnago (Verona)	40,000
	<hr/> 2,775,000

The factories of Bagnolo Mella, Mantua, Piacenza, and S. Elpidio are enlarging their plant in view of a production double their present output.

Spraying Materials. — The importance may be emphasized of the sale of spraying materials by agricultural consortia. Their share of this business at the beginning and end of the last decade appears from the following figures :

	1910 Quintals	1920 Quintals
Sulphate of copper	107,269	518,374
Sulphur	179,767	352,715

Seeds and Feeding Stuffs. — Some among the principal consortia keep in close touch with the progress of agricultural practice in the use of selected seeds and have constructed apparatus for cleaning seeds and selecting them, which unimportant at first have been gradually enlarged. In this connection there can be cited today various kinds of apparatus really remarkable for the level of technical perfection reached. The more important consortia organize also technical bureaux to promote the cultivation of pure strains of cereals.

Thus the consortia and kindred societies, which in 1910 had furnished approximately 140,000 quintals of cereal seeds to agriculturists, in 1920 touched the figure of 640,000 quintals. For forage seeds (leguminous, grass) the following comparison may be similarly instituted: 1910, 62,000 quintals; 1920, 88,000 quintals.

The supply of feeding stuffs, such as the concentrated kinds (cake, bran, offals, pulped roots, maize), of hay for cattle food and of straw assumes in the last decade an important place in the activity of agricultural consortia, especially the larger ones.

Within ten years, the supplies of feeding stuffs made by agricultural consortia increased more than five-fold. To this increase the progress in the system of feeding has contributed, the perfecting of the co-operative organization and especially the market conditions induced, during and immediately after the War, by the State control of cereals and cereal offals constituting the chief part of concentrated foods.

Fuel. — The employment of motor power, whether steam or oil, entering largely into the normal activity of the farm, has brought about in country districts an increased demand for coal, petrol, benzine, grease and lubricating oils. Many consortia have set up special organizations to supply these to farmers. Some have built depots for the storage of inflammable materials and for the systematic distribution of them. In the enquiry of 1910 the quantities of these substances supplied to farmers were not noted, because at that date these goods were reckoned only in a few thousands of quintals. In 1920 on the other hand there were distributed by the agricultural consortia and societies of similar scope the following quantities: coal, 276,198 quintals; benzine and petrol, 37,122 quintals; grease and lubricating oils, 11,594 quintals.

Machines. — The co-operative agricultural consortia by technical and commercial propaganda have given a remarkable impulse to the employment of machines in the period under consideration. While in 1910 these were only supplied to farmers to the value of 5,516,238 liras, this figure rose in 1920 to 34,280,549 liras.

Food Stuffs for the Rural Population. — The supply of food materials to the rural population constitutes at the present time a far from negligible part of the activity of numerous agricultural consortia and co-operative societies of similar scope. The restrictions introduced during the War and the control of the distribution and consumption of cereals, fats, sugar, etc., decreed by the authorities, rendered necessary the institution of new organizations adapted to stabilize the relation between food production

and consumption. Many consortia, in view of the new situation, considered it advantageous to lend the support of their own organizations to the public authorities thus enabling the rural populations to obtain more easily some food stuffs not available in large quantities and under State control. Such were the principal reasons for the rapid development in later times of the supplying of food by this group of bodies. Another by no means negligible factor of this new type of activity of the agricultural consortia may be found in the institution of numerous branches which the more important agricultural societies have opened in the small centres in their zone of activity. It then seemed opportune to add to the business of supply of goods exclusively for agricultural use that of articles of food for the families of the cultivators, who thus found it greatly to their interest to gain admission to the co-operative organization, providing as it did for all their needs.

Taking it all round then, from the data revealed by the enquiry there emerges the fact that the agricultural consortia for more than thirty years have been acting as effective instruments for the technical economic progress side by side with the existing scientific institutions carrying on propaganda (higher schools, practical courses and itinerant lectureships of agriculture).

It has been justly observed that "in contradistinction from other countries, where agricultural co-operation arose after the new scientific and technical agriculture had been widely established, in Italy agricultural consortia and similar institutions have preceded and gone side by side with the technical progress, themselves almost always acting as a motive force, bringing about the co-operative supply of fertilizers, machines, seeds, spraying materials, feeding-stuffs, and food materials". During the War, as has been seen, they extended and improved their organization, exercising new and valuable functions, and gradually winning the confidence of the agriculturists who joined the consortia in large numbers. In critical moments the farmers were enabled to overcome serious difficulties by the supplies of fertilizers, spraying materials, etc., put at their disposal by the consortia, the cultivation of the soil being thus assured, and the economic resistance of the country being strengthened. Finally, in the time immediately after the War they succeeded in following the consequent disturbed state of the markets without failing in their specific task, the supply of all agricultural requisites, and the action of their prices had a steadying effect. It may be said that even in this period their work was not in vain, seeing that the agricultural consortia are now looked upon as "irreplaceable parts of the machinery of agricultural production in Italy".

§ 2. THE ITALIAN FEDERATION OF THE AGRICULTURAL CONSORTIA

The agricultural consortia generally operate in a restricted zone, not exceeding as a rule the limits of a province: but in order to ensure more effective action it is essential that relations should be established

over a larger field, that they should come into contact with national and foreign trade on a large scale and that they should group themselves into a central organization co-ordinating their principal functions.

For about thirty years the institution which satisfies this need of bringing together the agricultural consortia, operating from a large centre of activity, has been the Italian Federation of Agricultural Consortia with headquarters at Piacenza, two regional offices at Rome and at Naples, and a shipping office at Genoa. It was constituted 10 April 1892 as a co-operative society with limited liability with the object of spreading agricultural co-operation by means of propaganda and of consolidating it by business methods. The following figures illustrate its development from 1892 to 1920 :

TABLE IV. — *Development of the Italian Federation of Agricultural Consortia from 1892 to 1920.*

Years	Number of affiliated associations	Number of shares	Share capital and reserve funds	Value of goods sold
—	—	—	Liras	Liras
1892	56	158	4,200	700,000
1902	300	2,058	96,692	4,000,000
1912	693	5,999	246,506	18,500,000
1920	909	23,499	1,879,383	258,500,000

It may here be noted that the 900 odd institutions affiliated to the Federation include in their turn numerous small associations indirectly operating in the orbit of the central national organization. The figures for 1921 are as follows: federated societies, 939; shares, 23,143; capital and reserve funds, 2,138,242 liras; value of goods sold, 352,000,000 liras.

The Functions of the Federation. — For the better comprehension of the varied forms of federal activity we subjoin the rule relating to the objects of the institution. The aim is to give the greatest possible impetus to agriculture in Italy and in the colonies and a substantial increase in the prosperity of the agricultural classes. To attain this object the main proposals are: 1. to promote the formation of new agricultural consortia, to further the development of those already existing and of other bodies with similar scope (agricultural associations, agricultural unions, rural banks, etc.), inculcating a unity of purpose and action and encouraging federated grouping; 2. to produce, buy and sell, on the account of and in the interests of the members, goods, produce, implements, machines, live or dead farm stock and everything needed for the successful carrying on of agriculture, and also to sell to outsiders, under limitations imposed by the Committee of Management; 3. to exercise and to encourage, within the limits and on the methods laid down by the Committee of Management, the production and sale of food materials and to promote the formation of co-operative societies for the execution of work of agricultural interest and

for the direct or indirect management of farm land; 4. to build and purchase vessels and other means of transport; 5. to loan or hire out machines and implements; 6. to furnish information and the means necessary to enable the agricultural classes to profit by the best markets, and to apply for special rates in their favour; 7. to promote the establishment of experimental stations and plots in the interests of agriculture; 8. to act as intermediary between members and third parties, providing when necessary the proper guarantees, or giving credit to members, whether by purchasing the material they need or by finding a sale for their produce.

When the Committee of Management consider it opportune, the Federation may create associations for collective purchase acting in participation with the federated societies. Of these associations we will speak later.

The Federation may become a member of national and foreign societies with kindred scope. Membership of the Federation is open to co-operative societies generally and in particular to agricultural consortia and bodies acting as such. Members have the right to enjoy the advantages offered by the Society in respect of purchases and sales and any other of its operations, to vote in the general meeting when they have paid up the whole value of a share, and to share in the assets and the profits in proportion to the shares they hold.

The Organization of the Federation. — The organization of the Federation includes the general management, a business department, an administrative section, a section for propaganda and two regional offices.

The general management with headquarters at Piacenza consists of a Committee of Management of 12 members and of five auditors nominated by the general meeting of members, chiefly from among the representatives of the affiliated societies. As it is not possible to convoke the Committee of Management frequently, a part of its powers is delegated to an executive committee, consisting of the President, the Vice-President and the Secretary, and to the Manager and his deputies whose business it is to direct the proper working of all the departments. ¶

The business department includes two offices: (a) the Office for the purchase and sale of agricultural requisites (chemical manures and the raw materials for their manufacture, spraying materials, seeds and everything to be supplied to the affiliated societies, except machines and farm-implements); (b) the Machinery Office, which deals in agricultural machines and implements, with sub-departments, viz: a staff of technicians, a despatching office and a depot for machines and implements.

The administrative department includes an office for the payment and receipt of money, an accounting department and a supervizing department. The *Banca Popolare* of Piacenza acts as the bankers of the Federation. Numerous banks supply the Federation with the necessary credit for business transactions. The affiliated societies obtain extensive credits from local banks and they in like manner contribute towards financing the commercial transactions of the Federation. The National Bank of Agriculture has lately come into being under the auspices of the Federation. It has a capital of 28,000,000 liras (of which 20,000,000 liras

are contributed by agricultural consortia and by popular banks), divided into shares of 500 liras each. Constituted on a legal basis it has begun operations at its Milan headquarters, whence branches, agencies and representatives operate in all the provinces of Italy.

The propaganda department engages in propaganda in respect to technical agriculture and in respect to co-operation.

The technical propaganda is concerned with the institution of experimental and demonstration plots bearing on the use of fertilizers and of selected seeds in all the regions of Italy, also with the publication of pamphlets of a popular character.

The co-operative and economic propaganda is directed towards spreading knowledge of the progress of co-operation and of the principles that should inform agricultural co-operation. The office also undertakes the systematic collection of statistics relating to the co-operative movement and the activity of the affiliated societies. With this in view questions of agricultural economy of general interest are studied, and enquiries and the results of statistical researches published.

Its organs are a monthly review of technical agriculture, *L'Italia Agricola*, and a weekly illustrated journal, *Il Giornale di Agricoltura della Domenica*, of a technical and economic character.

To the propaganda department is attached a printing establishment for the publication of these periodicals and of all kinds of printed matter required by the affiliated societies.

The regional offices are situated one at Rome for Central Italy and Sardinia, and one at Naples for Southern Italy and Sicily. An office has lately been opened at Genoa for overseas business.

Associations Participating for Collective Purchasing. — Mention has already been made of these. They are based on the principle laid down in Articles 233 to 238 of the Commercial Code. In accordance with these articles an individual or a commercial company may assign to one or more persons or companies a share in the profits and (should they occur) in the losses of one or more commercial undertakings. The association has no corporate existence in relation to third parties. The participants are obliged to receive the goods of which purchase has been arranged, and have the right to examine the profit and loss account.

The Federation up to 1903 confined itself to buying goods wholesale for resale to its members; but from that date it adopted this system for the collective purchase of phosphate, nitrate, potash, copper sulphate, etc., with excellent results.

The special influence which the association in participation has on the market calls for remark. The participants fix the quantity they require without stipulation as to price, and leave it to the managing staff of the Federation to undertake the arrangements for supply. As very large quantities are always involved, it is obvious that the business is negotiated on favourable terms, and that the results are satisfactory from a business point of view.

When the business cannot be negotiated under the form of an associ-

ation in participation, whether by reason of the nature or the quantity of the goods, the Federation acts on its own account, taking care to obtain orders in advance from the federated societies.

The Supply of Fertilizers and Miscellaneous Goods. — The quantity of fertilizers, spraying materials and other goods distributed between 1909 and 1920 to the affiliated societies, whether directly, or on the system of association in participation, appears from the following table :

TABLE V. — *Supply of Fertilizers and Miscellaneous Goods.*

Quantals	1909	1910	1911	1912	1913	1914
Phosphate fertilizers.	692,395	930,737	1,025,853	688,651	839,458	208,094
Nitrate fertilizers . .	98,704	113,963	158,715	207,296	233,158	244,137
Potash fertilizers . .	47,206	64,025	66,656	77,719	70,595	60,776
Spraying materials . .	17,056	37,438	61,682	90,079	81,761	80,789
Seeds	6,859	19,494	13,922	16,267	9,071	5,816
Feeding-stuffs . . .	7,582	6,170	3,880	9,295	5,648	4,111
	1915	1916	1917	1918	1919	1920
Phosphate fertilizers.	22,227	56,550	25,081	4,950	2,448,315	3,218,445
Nitrate fertilizers . .	362,221	194,843	371,549	156,973	186,479	386,650
Potash fertilizers . .	24,167	5,154	9,955	1,700	4,328	40,992
Spraying materials . .	92,266	113,512	238,582	362,601	355,447	316,398
Seeds	8,822	11,125	13,695	39,994	49,802	70,413
Feeding-stuffs	2,046	2,100	19,085	14,974	8,341	323

If these statistics are taken in relation with those of general consumption in Italy it easily results that, especially for certain kinds of goods, a large part of the trade in agricultural requisites is in the hands of the Federation, which from the very fact of the preeminence it has gained is placed in a position to exercise a vigorous and at the same time steady influence with results in every way beneficial to agriculturists.

The Supply of Machines. — The activity of the Federation in regard to the trade in agricultural machinery dates back to 1900. The statistics given in Table VI (page 669) show its work in this direction in the last decade, indicating the value in liras of the machines supplied.

The Federation supplies every kind of machine to agricultural consortia, but chiefly ploughs imported from abroad or made in Italy, seed-drills and reapers and binders, spare parts and accessories. A keen propaganda campaign is carried on with a view to spreading by every possible means the employment of agricultural machinery. Practical courses, conducted by specialists, are frequently held in rural centres with a

TABLE VI — *Value of Machines Sold.*

Year	Liras	Year	Liras
1909	2,400,000	1915	2,825,000
1910	2,100,000	1916	2,900,000
1911	2,450,000	1917 . . .	6,000,000
1912	2,750,000	1918	15,400,000
1913 .	3,150,000	1919 . . .	10,250,000
1914 .	2,600,000	1920 . . .	25,100,000

view to popularizing a knowledge of the machines, and to acquainting mechanics and farmers with the method of working them. Thousands of copies of numerous leaflets are distributed throughout Italy demonstrating the advantages and the economy resulting from the employment of machines, and explaining carefully the method to be followed in handling them, keeping them in order and in their repair. The leaflets also indicate the best form of collective purchase and joint use, where the operations of a single farm would not give sufficient scope for machinery.

The Production of Selected Seeds. — During the last few years, several agricultural experimental stations have concentrated on the improvement by selective methods of different varieties of wheat. The Federation considered it expedient to place its organization at the service of these researches, so as to bring scientific results directly to bear on practice. This was first done in Northern Italy and afterwards in Central and Southern Italy, a lively interest being thereby aroused among farmers in this question.

Overseas Transport and the Ship-building Yard of Finalpia. — In 1915 the Federation, in conjunction with certain superphosphate factories, acquired the vessel "Famiglia" for bringing phosphates from Africa. It was the first example of direct intervention on the part of co-operative agricultural societies in the management of means of maritime transport for the supply of agricultural requirements. The Federation afterwards purchased three other vessels.

In 1918 the Federation constructed a ship-building yard at Finalpia in Liguria for the building of ships to be used in the transport of goods required for its purposes. Two vessels of about 1,500 tons were launched in 1920.

Propaganda and Research. — The Italian Federation of Agricultural Consortia has always exercised, in addition to its purely commercial functions, a wide influence as regards the technique of farming and the diffusion of technical methods among agriculturists, devoting to this considerable sums amounting in 1918, 1919 and 1920 to 78,000, 250,000 and 300,000 liras respectively. For many years past it has published and circulated thousands of pamphlets on the use of fertilizers, spraying materials and selected seeds; it distributes almanacs and memoranda admirably

designed to spread such technical knowledge among the rural population. It has besides contributed to the study of larger problems of rural economy by means of enquiries and publications entrusted to specialists of the highest competence. It has recently set up a Permanent Committee for Enquiry into Agricultural Economy composed of ten members, meeting at various times, in different localities, to consider the more urgent problems of economics and land policy that concern agricultural interests.

We must not omit to mention the Bureau of Agricultural Legislation which collects all documents relating to bills presented to Parliament and to laws passed that deal with agricultural matters.

The Federation thus represents not only a powerful commercial organization, but also a remarkable instrument of agricultural progress and a strong moral bond of unity between the agriculturists of Italy.

G. C.

MISCELLANEOUS INFORMATION RELATING TO CO-OPERATION AND ASSOCIATION.

GERMANY.

THE AGRICULTURAL CO-OPERATIVE CONGRESS. — *Deutsche landwirtschaftliche Genossenschaftspress*, No 17, Berlin, 15 september 1922.

The Congress of German agricultural societies took place this year on 31 August and 1 September at Stuttgart. The statement of the progress of co-operation brought out the marked development of the co-operative societies in the working year 1921-22. The net increase in the societies was 2,591 societies, and the total number of the agricultural co-operative societies proved to be 36,235 on 1 June 1922, that is 75 per cent. of all the co-operative societies in Germany (48,000 in round figures).

Some apprehension was expressed as to whether the development and the cohesion of the co-operative movement would be really forwarded by the scheme of the *Reichslandbund* for transforming the co-operative union which existed in connection with the *Bund der Landwirte*, into a single comprehensive co-operative organization to embrace the whole of Germany. Without detracting from the value of the *Reichslandbund* as an economic and political organization of agriculture, it was argued that agricultural co-operation in Germany owed its progressive development to the attitude of aloofness which it has always maintained towards political activity. Any change in this attitude would probably tend to the breaking up of the present unity of feeling among co-operators.

Among the general economic questions most discussed at the Congress were that of increasing agricultural production, so that the population might be as far as possible self-supplied and that the importation of food-stuffs might be diminished, and that of agricultural credit. It was

remarked that for financing the purchases of fertilizers — an outlay estimated at 45,000,000,000 marks — it was desirable to study the method of supplying the necessary credit for the provision of working capital, by means of new legal provisions relating to bills of exchange, of the introduction of *warrants* on agricultural produce, or by means of legislation on the institution of pledges on farm stock. M. T.

HOLLAND.

CO-OPERATIVE PURCHASES OF AGRICULTURAL REQUISITES IN 1920 — VERSLAGEN EN MEDEDELINGEN VAN DE DIRECTIE VAN DEN LANDBOUW (*Report and Communications of the Board of Agriculture*), The Hague, 1922, No. 3.

In 1920, 1,014 societies, including 119,768 members, made co-operative purchases to the value of 81,415,355 florins, or 3,670 florins per 100 hectares of land farmed. These purchases were made up as follows: fertilizers, 38,270,363 florins; feeding stuffs, 40,238,303 florins; seeds, 1,838,848 florins; other produce, 1,068,141 florins.

The development of co-operative purchasing will be seen to be considerable if these figures are compared with those of previous years, in the way shown in the following table.

Year	Number of societies	Number of members	Total value of purchases	Value of purchases per hectare of land farmed	Fertilizers	Feeding stuffs	Seeds	Other produce
			florins	florins	florins	florins	florins	florins
1904	855	56,192	11,881,720	559	6,132,081	5,422,870	175,157	151,612
1907	996	74,442	18,601,571	878	9,335,911	8,671,087	203,622	390,951
1910	1,101	91,121	24,446,523	1,135	11,624,547	12,121,443	318,561	381,972
1918	1,177	104,455	37,361,963	1,709	17,254,396	19,308,226	421,969	377,372
1920	1,014	119,768	81,415,355	3,670	38,270,363	40,238,003	1,838,848	1,068,141

M. B.

ITALY.

1. THE CO-OPERATIVE MOVEMENT IN RELATION TO THE NATIONAL CREDIT INSTITUTE FOR CO-OPERATION. — ISTITUTO NAZIONALE DI CREDITO PER LA CO-OPERAZIONE: BILANCIO DELL'ESERCIZIO 1921. Rome, 1922. — ISTITUTO NAZIONALE DI CREDITO PER LA COOPERAZIONE: SEZIONE AUTONOMA DI CREDITO FONDARIO E AGRARIO: BILANCIO DEL 1° ESERCIZIO (1921). Rome, 1922

The report of the National Credit Institute for Co-operation for 1921, its eighth working year, indicates clearly the wide development in Italy of co-operation for labour, the fundamental form of association adopted by the workers. It is being applied not only to work in which manual labour is predominant, but also to public works requiring important mechanical appliances and plant. The number of agreements made during the year

1921 to assign orders to pay issued by public administrative bodies was 838; on the security of these, loans amounting to a total of 166,225,269 liras were made to 416 consortia and co-operative societies to enable them to carry out work to the value of more than 335,000,000 liras. Adding to these new agreements those previously signed and in force on 31 December of the previous year, a total of 1,368 agreements is obtained, referring to 596 societies, which have assigned orders to pay the amount of 642,425,938 liras, and have received loans to the amount of 297,627,540 liras.

The direct loan transactions were also of considerable importance, both those connected with co-operation for production and labour and those representing credit of a more strictly business character. Of importance too is the business done in loans on the security of insurance policies which are intended to place ex-service men in a position to take paid up shares in the co-operative societies to which they belong, or to purchase instruments of labour so as to provide for the gradual repayment of the debt out of earnings. The loans to co-operative distributive societies guaranteed by the right to levy distress on goods, were also considerable, amounting at the end of the year to 77,611,008 liras. The credit supplied for building purposes and for agriculture was also large. On this last form of credit, which has a special interest for us, we will give some further details. By Decree of 22 April 1920, No. 516, a special Land and Agricultural Credit Section was created to provide credit for the benefit of the *università agrarie* and of agricultural labourers' associations, legally constituted as corporate bodies or under the form of co-operative societies, which are owners or tenants of land or occupy it under a voluntary agreement or in virtue of an order made by the administrative authorities in the cases contemplated by the Royal Decrees of 2 September 1919, No. 1,633, making provision for increased agricultural production, and of 22 April 1920, No. 515, making provision for the cultivation of lands.

It is here necessary to recall the origin of this section, the better to understand the duties allotted to it. In Italy there persist many traces of the former collective ownership (*proprietà collettiva*); more especially in the provinces of the former Papal States and in Emilia there exist under the names of "*università agrarie*", "*comunanze*", or "*partecipanze*" associations regulating the collective use of large areas of land as meadow, pasture or woodland, whether the lands really belong to the rural communities or represent the joint property of individuals whose rights are derived from mediaeval feudal rights. These bodies, which were first regulated by the Law of August 1894, No. 397, have landed property of no inconsiderable extent: though exact and recent statistics are not available, it is estimated that in the province of Rome alone the cultivated or pasture lands over which the *università agrarie* exercise rights, whether rights of ownership or customary rights (*uso civico*), are more than 100,000 hectares in extent.

Now it is evident that the *università agrarie* are co-operative, if not in form, at least in substance. The National Credit Institute recognized the social importance of these bodies and with a view to the study of their

working and the promotion of their development on modern lines, set up towards the middle of 1917 a special office known as the *Ufficio delle università agrarie*. On the initiative of this, with the support of the Ministry of Agriculture, there followed the drawing up of a legislative provision which was embodied in the Decree of 4 October 1917, No. 1,604, afterwards replaced by the Lieutenantcy Decree-Law of 14 July 1918, No. 1,142. By this decree there was granted to the *università agrarie* of Latium the power to add to and improve their property, and to contract loans on the basis of a special ordinance of experimental character.

Meantime the National Institute had applied for and obtained the power of assisting with loans the agricultural associations of the kind mentioned, as well as agricultural co-operative societies, and to meet this need the Lieutenantcy Decree of 8 October 1916, No. 1,336, was promulgated, on which there shortly followed other measures (1) of which the most important was undoubtedly the one that established the Land and Agricultural Credit Section above mentioned.

The Decree of 22 April 1920, No. 516, thus defined (Art. 2) the operations of this section, for which 100,000,000 liras were set aside:

(a) loans for the provision of working capital for farming land, its ordinary cultivation and the working up of the produce;

(b) loans for improvements and changes in the system of cultivation;

(c) mortgage loans for the purchase of land, for enfranchisement of land from dues and charges, for improvements and changes in the system of cultivation to an amount not exceeding 80 per cent. of the purchase price or the amount of the valuation of the land.

On the basis of these provisions mortgage loans were granted or applied for, as shown in the following table:

Mortgage Loans Granted or Applied for.

	Area	Valuation of the land	Loans made	Period of the loans	Percentage
	hectares	liras	liras	years	—
(a) Loans definitely advanced of which the amortization began on 1 January 1922.	943.8680	9,720,000	6,500,000	30	67
(b) Loans sanctioned but not yet advanced	5,098.8842	22,462,730	12,467,500	—	—
(c) Loans applied for but not yet sanctioned	2,921.9431	—	—	—	—
	8,964.6553	—	—	—	—

(1) See on this point the article in the *International Review of Agricultural Economics*, January-February 1922, on "Measures Adopted during the War to Encourage Agricultural Cooperation".

In nearly all cases the purpose for which these loans were applied for was the purchase of land.

Loans for improvements and changes in the system of cultivation (plantation of timber trees, olive trees, almond trees, fruit trees, vines, etc., general changes in the crops cultivated, preparation of land and adaptation of buildings) were made only to a moderate extent. Thus a credit of 500,000 liras was granted to the Co-operative Landholding Society of Castelfandolfo for the laying out of a vineyard on 26 hectares of land, while three other credits with the same object were under consideration on 31 December 1921 and were subsequently sanctioned in favour of the co-operative societies of Putignano, Spinazzola and Gioia del Colle, in the province of Bari, for the sums of 200,000, 240,000 and 200,000 liras respectively. The intention of the Section was to initiate in this way the experiment of credit for tree planting, awaiting the result of the first trials before making further developments.

The other operations carried out have to do with loans for providing working capital for farming which are granted in the manner already noted. On the whole, the first year of working of the Section (1) closed with loans on the security of bills amounting to 63,127,068 liras, and mortgage loans amounting to 6,500,000 liras.

In conclusion the work of propaganda carried on by the Institute and the support given to the co-operative movement in general calls for remark. The "School for Co-operators" was carried on during the year under consideration, as in the previous year. Eleven courses in book-keeping and in thrift were arranged: five in Northern Italy, three in Central Italy, and three in the South. These courses were attended by 268 students, chiefly employees in co-operative societies: they lasted in each for 45 days and were conducted by local instructors. As regards agricultural co-operation in particular, the propaganda campaign received its first impetus from a congress of co-operative societies at Bologna on 3 June 1917 as a result of which the Institute founded in that city an Office for inspection of and assistance to the agricultural co-operative societies, with the objects of re-organizing the co-operative land-holding societies (*affittanze collettive*) in every part of Italy. Press support was given to this movement, and a periodical *La Cooperazione Agricola* was published which spread an understanding of the principal problems of co-operation in its application to agriculture. In the autumn of the same year a similar office was opened in Mantua for the province of Verona and, after the armistice, for the Trentino. Another office of the kind came into existence at the end of 1918 at Florence with the object of assisting and promoting agricultural co-operation in Tuscany. To the National Institute is due the formation of an office for assistance, propaganda and inspection in connection with the movement for agricultural co-operation in the Venetian provinces. This later passed under the control of the Federal Credit Institution for the Revival of Venetia.

(1) By the Law of 22 March 1921, No. 312, there was set up in the Institute a Section of Credit for Fisheries, with an endowment of 2,000,000 liras advanced by the State.

2 THE BANK OF LABOUR AND CO-OPERATION IN ITS SECOND YEAR OF WORK
ING - BANCA DEL LAVORO E DELLA COOPERAZIONE: ESERCIZIO 1921 (2° ESERCIZIO SOCIALE)
RELAZIONI DEL CONSIGLIO DI AMMINISTRAZIONE E DEI SINDACI BILANCIO AL 31
DICEMBRE 1921 E RENDICONTO ECONOMICO NOTE E TAVOLE ILLUSTRATIVE Milan, 1922

In the *International Review of Agricultural Economics* of January February of the current year we explained the organization and first results of the Bank of Labour and Co-operation formed in 1919 "to place the benefits of credit and saving at the disposal of production and labour in their various manifestations" and particularly at the disposal of co-operation. It was shown in that article that the organization of labour was already fully developed in Venetia; that in Lombardy definite forms of co-operative activity had received support from the Bank and that this latter had not neglected to create co-operative centres in Piedmont (provinces of Turin and Cuneo), in Tuscany, in Latium and Campania. An examination of the statement of accounts for 1921, the second year of working, and of the information which accompanies it, reveals the fact of its steady progress and the increasing value of its activity.

At the close of the financial year 1919-20 the Bank besides its administrative headquarters in Milan had an office at Naples for the South, branches at Bergamo and Salerno and an agency at Magenta. In the course of 1921, gradually realizing a programme of expansion in accordance with the needs of the co-operative movement, district offices were formed at Turin, Padua and Rome, as well as branch offices at Como, Cremona and Varese and an agency at Salerno, while preparations were made for opening an office at Catania, this centre for organization in Sicily finally taking shape at the beginning of the year.

This development was the more appreciated as the Bank, retaining its principle of granting credit only to societies which are well managed and are technically well equipped, has so organized its new offices that they will be able to inspect, supervise and assist the societies to which advances are made, and the security of the loans will accordingly be the sound working of the societies themselves rather than ordinary guarantees.

We now come to the actual figures. The cash account of the Institute shows receipts amounting to 535,620,313 liras and an expenditure of 533,203,601 liras, with a balance at the end of the year of 2,416,711 liras; the bills discounted amounted to 200,909,886 liras, while the bills rediscounted or paid amounted to 187,985,190 liras, and by adding to the balance (12,924,395 liras) 59,810,838 liras being the value of bills in circulation, there was on the 31 December 1921 a credit of 72,734,754 liras in unpaid bills, as compared with 52,654,722 liras on 31 December 1920. The advances to co-operative societies, as shown up to that date, reached the following amounts:

to co-operative societies for production and labour .	48,059,010 liras
to agricultural co-operative societies	11,317,792 "
to distributive co-operative societies	10,919,490 "
	<hr/>
	70,296,292 liras
plus discounts to trading bodies	2,438,461 "

There were besides bills to the value of 44,623,792 liras entrusted the Bank for collection, while the current account showed 421,186,422 liras of lodgements and 409,214,264 liras of withdrawals. A considerable increase as compared with the previous year occurred in regard to the current account with other banks which closed with a credit of 4,855,211 liras and a debit of 23,651,637 liras, due to the general increase in business.

A circumstance especially significant of the confidence reposed in the Institute may be mentioned, namely the business in savings deposits; there were deposits amounting to 38,959,641 liras, while the withdrawals amounted to 24,561,498 liras, leaving a balance at the end of year of 14,398,143 liras, in comparison with 2,968,023 liras on 31 December 1920.

The total business done (incomings and outgoings) was 1,976,197,018 liras.

The gross profits of the year reached the sum of 6,527,924 liras, as compared with 2,801,696 liras in the previous year.

Against these must be placed the expenses, which amounted to 6,518,879 liras including the sum of 493,505 liras for the office of technical and legal assistance to co-operative societies.

Certain figures are especially interesting. The outstanding loans to the co-operative societies, amounting as it has been seen to 70,000,000 liras, are made up partly of loans granted in 1920 and renewed in the subsequent year, partly of new loans. The new loans granted in 1921 amounted to 42,067,607 liras, of which 32,116,225 liras were granted to co-operative societies for labour, 5,806,094 liras to co-operative agricultural societies, 3,315,288 liras to co-operative distributive societies and 830,000 liras to agricultural societies of various kinds.

As regards co-operation for labour, loans amounting to 25,000,000 liras were secured by the assignment of orders to pay issued by public bodies, and as regards agricultural co-operation, loans amounting to 3,770,000 liras were secured by the right to levy distress on farm-stock and on ungathered fruit. Other important loans were also made, partly secured by the insurance policies of ex-service men assigned to co-operative societies as an addition to their share capital (727,381 liras) and partly secured on indemnities due for war losses and granted to co-operative labour societies in Venetia (9,972,800 liras): such loans together with those previously mentioned make up a total of 52,767,789 liras of new transactions carried out in 1921 with co-operative societies or their members.

This vast mass of operations, each demanding special care and attention, necessitated supervision on special lines and by a qualified staff. There was therefore set up for the purpose an Office of Central Inspection, where were kept an analysed schedule of the co-operative societies, a register of the insurances against risks held by them, in which the undertakings financed are entered with a note of their obligations to the Bank, and a record of due dates for everything concerning the societies (balancing of accounts, re-elections of management committees, falling due of insurance premiums, amortization of debts, granting of credits, etc.). The

work of this Inspectorate was devoted in 1921 to helping the societies to tide over the difficult post-war period.

The report mentioned then discusses the influence of the Bank on the co-operative movement, indicating the more important problems that had to be dealt with during the year.

After describing the measures adopted for the benefit of co-operative distributive societies, which felt more than any others the effects of the economic crisis, the report gives examples of the results achieved in the field of agricultural co-operation, particularly those due to the creation of occupying ownership of small holdings under the auspices of special co-operative societies "for purchase and subdivision of land," and also those due to the co-operative management of agricultural undertakings.

A remarkable effort to assist co-operation in its development and consolidation has thus been made in the two and a half years of the life of the Bank and the intention is that this shall be continued with the help of the societies themselves. Now that the initial stage is passed these societies "must accustom themselves to a more exact adjustment of the general conditions of the money market. They must proceed to make changes, and to detail plans for the future. Good-will must be aroused and dormant energy rendered effective, so that the sacrifices of the past may not be in vain, while the fruits of experience may be realized."

G. C.

NORWAY.

THE NORSE PEASANTS' FEDERATION (NORSK LANDMANSFORBUND). — KNUDSON (Nicolay H.): Aus der Geschichte der Bauernbewegung Norwegens, in *Grüne Internationale*, Part 1-2, August September, Vienna, 1922.

The European agricultural crisis, which began about 1880 as a result of transoceanic competition, was the determining cause which led to the formation in Norway of a large national organization among the peasants. On 6 February 1896 there was formed the *Norsk Landmansforbund* to unite the agriculturists in the common task of guarding their economic and social interests, of securing the prosperity of agriculture and of ensuring that the authorities would give it the necessary protection. The great majority of members of the Federation, at the present time numbering 70,000, are peasants. As regards political parties, the Federation did not originally form a separate political organization, but relied for support on existing parties. In 1910 it was decided to put up for election only candidates connected with the Federation. On the occasion of the political elections of 1921 the Federation obtained for the first time 17 seats out of the 150 Parliamentary representatives. The programme of the Federation includes not only the elevation of the agricultural classes, but also the equitable treatment of all classes for the general good of the country. 'The work so far accomplished by the Peasants' Federation gives good promise for the future.

M. T.

Miscellaneous Questions relating to Agricultural Economy

ECONOMIC AND SOCIAL CONDITIONS OF THE AGRICULTURAL CLASSES

MISCELLANEOUS INFORMATION RELATING TO THE CONDITIONS OF THE AGRICULTURAL CLASSES.

FINLAND.

THE CONVERSION OF TENANT FARMERS INTO OCCUPYING OWNERS — ELfvING
(Dr. Oesten): Die Bodenfrage in Finnland. In the *Archiv für Innere Kolonisation*,
Vol. XIV, Part 9-11. Berlin, June to August 1922.

From the most remote times the system of tenancy was practiced in Finland by a population destitute of capital, as a means of acquiring land for cultivation. In the greater number of cases this form of colonization was carried out as follows: The cultivator obtained from the landowner permission to build in a place agreed on a dwelling house for himself, making use of the material from the woodland belonging to the owner, and in the same way to erect the out-buildings necessary to the working of the farm; he was also given permission to break up the land and to cultivate it either as arable land or as pasture to the extent of his ability. In the first few years the cultivator usually had no obligation to pay anything; afterwards the rent was paid by the method of doing work for a certain number of days fixed by agreement between the parties, to which there were added in some cases payments in kind, of wool, eggs, fruit, etc. Only very occasionally was a money rent paid.

After the rise in the price of wood, the owners no longer found it suited them to keep tenants on their land, and by degrees they resumed possession of the farms and incorporated in their own lands the more fertile plots. In this way the number of tenants, according to the returns, decreased in the period from 1901 to 1912 by almost 10,000.

In 1909 the Parliament passed a new law on tenancy by which tenants whose economic and social position was inferior to that of the owners could

in certain cases secure defence in a court of law against the claims advanced by these latter. In 1914 a Commission was formed for the purpose of finding a solution to the problem of the conversion of small tenancies into small independent holdings. The outbreak of the War delayed the prosecution of this enquiry and the question was only settled on 15 October 1918 when a law was passed with the object of rendering the rented farms independent property.

On the basis of this law both the landowner and the tenant have the right to suggest, at any time during the period of tenancy, the sale of the rented farm. The area of the saleable land is limited to the area up to this time worked by the tenant, but it cannot exceed twenty hectares and for the plots of agricultural or industrial labourers two hectares.

The sale price is fixed on the basis of pre-war prices. Since the price of land has gone up considerably in the interval and money has depreciated, the tenants can purchase their farms at a relatively low price. In some cases the tenants have had recourse to State aid for the payment of the sum of money required for the purchase. The State has thereupon on the request of the tenant paid the purchase price to the owner in State bonds and has granted to the tenant a loan of corresponding amount repayable by instalments.

The above mentioned law, which was completed in 1919 by a special administrative Decree has brought about the sale of rented farms all over the country without any serious opposition. The reform was to be carried through within a few years.

M. T.

FRANCE.

ENCOURAGEMENT OF RETURN TO THE LAND. — DÉCRET DU 17 OCTOBRE 1922, INSTITUANT DANS CHAQUE DÉPARTEMENT UN COMITÉ DU RETOUR À LA TERRE. *Journal Officiel*, 19 October 1922.

A Decree of 17 October 1922 creates in each department, under the chairmanship of the prefect and under the authority of the Minister of Agriculture, a Return to the Land Committee nominated by order issued by the Minister of Agriculture and consisting of 22 members, of whom ten are nominated by the Minister on the proposal of the prefect and ten are elected by the agricultural societies of the department: the two other members are the Chief Inspector of Agriculture of the region and the Director of Agricultural Services of the Department.

This Committee is formed with the object of issuing or encouraging the issue of the necessary propaganda on the return to the land, of assisting farmers and agricultural labourers to find land they can cultivate or posts they can fill. It gets into touch with the public Labour Exchanges and Employment Bureaux, wherever they exist. It gives support when required to farm-workers, male and female: spreads a knowledge of the laws as to thrift, social insurance and the acquisition of land. Finally by seconding the efforts of the public offices for erecting cheap dwelling houses, it engages in the work of ensuring convenient and healthy accomoda-

tion for the families of farm hands. In a general way, it encourages all public and private initiatives that can help to bring about the return to the land, and the well-being of the rural classes.

M. B.

GERMANY.

THE PREVALENCE OF TENANT FARMING IN GERMANY AND STATE INTERVENTION FOR ITS REGULATION. — SEIFF: *Neuregelung der Pachtschutzordnung vom 9 Juni 1920*. In the *Archiv des Deutschen Landwirtschaftsrats*, 41st year Berlin, 1921 — SCHTELE (Martin), Member of the Reichstag: *Das neue Pachtschutzgesetz*. In the *Deutsche Tageszeitung*, Nos 175, 176, 177 Berlin, 10, 11, 13, August 1922. — SKALWEIT (Prof. Doctor Augustin): *Das Pachtproblem*. In the *Bonner Agrarpolitische Untersuchungen*, Part I, Bonn and Leipzig, 1922

The prevalence of tenancy as the form of land holding varies very much in different parts of Germany. For the most part the decisive factor in respect to this was the manner in which the changes in the former system of land holding had come about. Where, as almost everywhere in Germany, the peasants, on the dissolution of the previously existing feudal ties, became landowners, there is little tenancy especially among the occupiers of small or medium-sized farms. Where on the other hand the landed proprietor has succeeded in modifying the former relations with the new dependents in accordance with the requirements of the landlord classes, the tenancy system is still in force at the present time. But as a rule occupying ownership is the usual form of tenure, whether the number of the farms or the total of their area is considered.

According to the most recent census, that of 1907, there were in existence nearly a million farms (to be exact 985,899), consisting exclusively of rented land: the extent of these was equivalent to 6.8 per cent. of the whole area utilized for agriculture. About 900,000 of these farms, that is to say nine tenths, belonged to the smallest group of farms of less than two hectares in extent, 50,000 to the class of farms from two to five hectares, and about 40,000 to the class of farms from five to ten hectares. If in this latter class account is also taken of farms where half the land is rented, the number rises to 109,000. Again in the class of large farms tenancy was of considerable importance: of the 23,156 farms of an extent greater than 100 hectares, 5,156 consisted exclusively of rented lands and 1,005 were more than half rented lands. The leasing of large farms is prevalent in the Eastern provinces of Prussia, where there is a preponderance of large estates, and even more so in Southern and Western Germany, where landowners took up farming only to a very limited extent. Thus for example the large rented farms represent 47.5 per cent. of the area of agricultural land in Hanover, and as much as 77.1 per cent. in the district of the Neckar (Wurttemberg), thus considerably exceeding the average for the whole of Germany which is for farms of more than 100 hectares 20.5 per cent.

The fact of the marked prevalence of the system of tenancy in certain localities, taken in conjunction with the continual depreciation of the currency, more and more pronounced in the post-war years, has induced the

Government to intervene in the drawing up of agreements, a matter in which hitherto the parties had been left free, and to put a stop to the notices to quit that were being given by landowners all over Germany. By a vote of the National Assembly, the Government was invited on 19 July 1919 to issue without delay a decree by which : 1. it should be impossible to take away land held in tenancy, and particularly small holdings so held from the tenant without serious cause ; 2. if such resumption of the land by the owner had already taken place without any serious cause, the previous state of affairs should be restored : 3. the rents should be so regulated as to make excessive claims impossible. A Decree expressly safeguarding tenancies was issued on 9 June 1920 (*Reichspachtschutzordnung*) which was to remain in force till 30 May 1922 and was then extended by a Law of 29 June 1922 to 30 September 1924.

On the basis of these measures, the higher provincial authorities are authorized to institute in all areas under their administration or in any part of them Tenancy Conciliation Committees (*Pächteinigungsämter*). These Committees are composed of a magistrate who is chairman, and of an equal number of landlords and tenants as members. In the nomination of the tenants regard must be had to the small, medium-sized and large holdings separately. The Conciliation Committee must in the first place endeavour to promote an agreement between the two parties concerned : if it does not succeed in so doing, then it pronounces itself. The substance of the agreement or of the judgment has contractual force for the parties, as though they had arrived at such an agreement by the ordinary direct means. The agreements and the judgments can be immediately put into force.

The powers of intervention possessed by the Tenancy Conciliation Committees vary according to the size of the farms. For those that are less than ten hectares, the courts can rule : 1. that the notice to quit is not valid and that the agreements in respect of which notice has been given shall be extended for a maximum period of two years : 2. that agreements expiring without notice shall be extended for a maximum period of two years : 3. that the agreements shall be dissolved before the due date. For farms of any other size, the courts can make a fresh ruling as to charges that do not appear justified in view of the altered circumstances.

The putting into force of these general rules, which have validity for the whole *Reich*, is delegated to the separate federal governments.

M. T.

LAND SYSTEMS

MISCELLANEOUS INFORMATION RELATING TO LAND SYSTEMS.

BULGARIA.

AGRARIAN REFORM — DISKALOFF (Dr Raiko), Minister: Beweggründe zum Gesetz für den Arbeitsland-Besitz in Bulgarien In the *Jahrbuch der Bodemeform*, Part. 3, Berlin, 1 August 1922 — HARTWICH (Dr Carl) · Bulgarisches Gesetz über das Zulässige Arbeitsgrundeigentum In the *Archiv für Innere Kolonisation*, Part 9-10 Berlin June to August, 1922

The characteristic feature of agrarian reform in Bulgaria does not so much lie in the expropriation of large estates, which is only of secondary importance as in the creation of a more equal distribution between medium sized and small holdings. This reform has as its legal basis the Law of 5 May 1921 (1), which contains the following fundamental provisions:

The right to property in land is limited to an area of 30 hectares per family, when the soil is cultivated directly by the owner. If the owner does not cultivate the land himself, he cannot own more than four hectares for himself and more than ten altogether with the family (Article 2). The land occupied in excess of these limits is declared State property and constitutes the "Reserve for land for the workers" (*Trudowa posemelna sobstvennost*) (Art. 3). This Reserve is intended for assigning land: 1. to landless cultivators who are cultivating other people's land; 2. to small occupying owners who have insufficient land or who have no dwelling house on their land; 3. to agricultural specialists who have not enough land at their disposal; 4. to agricultural co-operative societies, for the establishment of model farms or for the organization of agricultural industry; 5. to agricultural labourers who do not possess land, but have shown that they are capable of being active owners of holdings. These must be less than twenty years of age and married or the support of their family (Art. 9). The lands which are assigned out of this Reserve must be put into order and should if possible be complete from an agricultural point of view (Art. 38 and 39). Owners in whose lands are included small lots belonging to other persons may apply for these to be exchanged for others of equal value (Art. 41). If land thus assigned remains uncultivated for a period of three years and also if it is not afterwards cultivated with sufficient care, it is taken from its new owners and returned to the Reserve, the money paid being refunded (Art. 16). The persons to whom lands are assigned

(1) This law was mentioned, while it was still before the Legislature, in the issue of April 1922 of the *International Review of Agricultural Economics*

in virtue of this law cannot for twenty years after the assignment alienate either their own land or that assigned to them except in favour of the Reserve (Art. 15).

The owners of expropriated lands are paid for on the basis of the average market price in the period 1905-1915, with deduction of the following percentages :

Hectares expropriated				Percentage
From	10	to	30	10
"	30	"	50	20
"	50	"	100	30
"	100	"	200	40
Over	200			50

The percentage indicated is paid to the management of the Reserve.

The expropriated owners receive payment from the Agricultural Bank of Bulgaria in mortgage bonds bearing six per cent. interest (Art. 53). The new owner receives the land at cost price plus a 20 per cent. supplement which goes to the Reserve, but the price per hectare must not be less than 1000 lei plus the 20 per cent. As security for the payment of the amount incurred over the transfer of the expropriated land, a mortgage for thirty years at eight per cent. is registered against the new owner in favour of the Agricultural Bank of Bulgaria (Art. 46). Bulgarian agriculturists returning to Bulgaria from other countries receive a mortgage loan for fifty years, and the first payment only falls due after three years from the date of gaining possession (Art. 56).

The agrarian reform, radical as it is for the most part, may nevertheless be carried out without serious difficulty owing to the preponderance in the country of a peasant cultivator population.

M. T.

GERMANY.

THE FOURTH NATIONAL HOME COLONIZATION CONFERENCE. — *Archiv für Innere Kolonisation*, Part 9-11. Berlin, June to August 1922

The Fourth National Home Colonization Conference (*Reichssiedlungskonferenz*) was called by the Minister of Labour of the *Reich* on the invitation of Prussia, and was held at Frankfort-on-Oder on 1 and 2 June 1922. There were present the delegates of all the Federal States. The question was discussed of the taxes on increments of value in respect to the home colonization undertakings of public utility, taxes which, for the said undertakings, are shortly to be regulated by provisions made by the Ministry of Labour.

It was generally recognized that colonizing enterprises should be devoted, even more than before, to the assistance of workers on the land, so as to eliminate the causes of the rural exodus. In addition to the steps already taken of setting aside for the construction of dwelling houses for farm labourers 200,000,000 marks from the fund for assistance

to the unemployed, and of setting aside 100,000,000 marks for providing work for farm labourers who have lost their employment in consequence of the division of large estates, it was especially recommended that steps should be taken to promote the raising of the status of the labourer by means of home colonization on a tenancy basis and in suitable cases by making use of the system of tenancy along with the right of purchase. It was held that the hindrances to colonization occasioned by the advance in prices, especially in the market price of building materials, could not be overcome except to a limited extent by the introduction of an economical system of building, and that in this direction it is difficult to look forward to any fundamental improvement until there is a return to a more stable condition of the currency.

M. T.

POLAND.

THE RESULTS OF THE AGRARIAN REFORM. — *Revue mensuelle de statistique*, published by the Central Statistical Office of the Polish Republic. Warsaw, Vol. V, Part 7, year 1922.

The agrarian reform has been put into force by the action of several laws. Fundamental principles were first laid down by the Law of 15 July 1919: the Law of 15 July 1920 regulated their execution: another of 6 July 1920 organized Land Offices: finally the Law of 17 December 1920 made free grants of a certain quantity of land to discharged soldiers.

Lands intended for agriculture must be divided into lots and distributed among the cultivators. Various classes of land are used with this object: those which belonged to members of the former reigning families; lands in mortmain after arrangement with the Holy See; lands acquired during the War by usurious methods and those that belong to persons who habitually speculate in land; in the last place lands acquired by private persons by means of an expropriation and in return for an indemnity. The present owners of estates have the right to keep a part of the lands belonging to them, in a proportion corresponding to a farm of average size, of from 60 to 180 hectares according to the district. Lands divided into lots are granted by preference to agricultural labourers who in consequence of the parcelling out of the large estates are left without work; to the cultivators of farms too small to supply the needs of a peasant family; to discharged soldiers, and finally to individuals who do not own land and have not up to now been occupied in agriculture but are capable of farm-work. The carrying out of the agrarian reform is entrusted to the District Land Offices. Before proceeding to expropriation, the competent Office gives notice to the owner concerned who, within a period of thirty days, has the right to give up his lands voluntarily against payment of compensation calculated according to the rules in force on the subject of forced expropriation. In the event of expropriation, the compensation is fixed by special committees, which take as the basis of evaluation half the current market price. Buildings on the farm, put up since 1 August 1914, are expropriated on the basis of their value when first built. Im-

improvements carried out since the same date, as well as the cost of cultivation, of fertilizers and of seeds are calculated separately taking into account their value at the time the improvement was made. Live stock is not subject to expropriation. The payment of the compensation can take place immediately, with reservation of the claims of third parties, or by graduated payments, increased by the corresponding interest. The parcelling out of rural lands is effected by the district land officers, who prepare the schemes and fix the price at which the parcels are granted, taking into account the value of the land on the basis of the compensation for expropriation as well as the value of the buildings and other improvements. If the grantees are disabled ex-service men or former soldiers who are without resources, the State will grant them a long term loan, by means of a fund built up by a levy on the expropriation compensations. The lots granted to private persons cannot be alienated nor subdivided, even in the event of decease, so long as they are not free of the mortgage guaranteeing the purchase price, and in any case before the expiration of 25 years dating from the formation of the plots.

In actual practice the State had only bought up, by 1 January 1922, 25 private estates of 7,148 hectares in extent and the parcelling out of four of these, amounting to an area of 818 hectares, had been undertaken in 1921, but the number and extent of the properties parcelled out, whether by Land Offices or by authorized private institutions or persons, is considerable. Over the whole of Poland, as a matter of fact, 1,679 estates, of a total area of 263,902 hectares, have been parcelled out. Out of these totals, 482 estates (i. e. 28.7 per cent.), of an area of 108,040 hectares (38.3 per cent.) have been parcelled out by the Land Offices; 492 (29.3 per cent.), of an area of 108,063 hectares (42.8 per cent.) have been parcelled out by authorized institutions; 705 (42 per cent.) of an area of 47,799 hectares (18.9 per cent.) by private persons.

Out of 600 estates, of a total area of 111,526 hectares, 6,785 separate farms have been made, comprising 68,463 hectares; 9,229 additions to farms, comprising 29,844 hectares; 1,105 holdings for artisans, workmen and employees amounting to 978 hectares; also 111 special colonies, with 1,429 hectares; 10,812 hectares have been reserved for undertakings of public utility.

The new owners include 583 former soldiers and disabled ex-service men, 1,280 former agricultural labourers attached to the farms, 386 former farmers, 3,941 landless peasants, 7,810 peasants who had an insufficient extent of land before, 964 whose land had been previously inadequate for their needs, and 162 with no agricultural experience: in other words, out of 100 new owners, one may reckon that 3.9 per cent. are former soldiers and disabled ex-service men, 8.5 are former farm-labourers, 2.6 former farmers, 26 per cent. landless peasants, 51.6 per cent. peasants whose land had previously been inadequate for their needs, 6.4 per cent. of peasants formerly possessing sufficient land, and one per cent. with no previous experience of agriculture.

In the Eastern territories (departments of Novogrodsk, of Bialystok, of Polesia and of Vilhynia), the State has undertaken in virtue of the Law of 17 December 1920 important operations of military colonization. It has acquired the ownership of 389,018 hectares, of which 90,351 belonged to the State or were Crown appanages, 16,854 belonged to the Church, 82,614 to private persons of Polish nationality, 197,319 to foreigners and 1,880 to other classes of proprietors, and out of these lands it has already set aside 98,470 hectares for the scheme for military colonization (36,169 hectares in individual holdings, 53,203 hectares in collective holdings and 9,098 hectares in workmen's colonies), 7,058 hectares for public institutions and 47,371 hectares for the purpose of putting into execution the agrarian reform.

In short much work involving radical changes has been accomplished by the Land Offices in the former kingdom of Poland: the doing away with rights of usage and of feudal dues, the consolidation of holdings, the distribution of lands held in common (pasturage, forests), etc. The following figures show the extent of the work in progress :

State of transactions	Emfranchisement from dues		Distribution of lands held in common		Consolidation of holdings		Exchange of lands	
	Number of farms	Area of lands received in compensation for dues	Number of farms	Area of land-owned	Number of farms	Area of holdings to be consolidated	Number of farms	Area of lands exchanged
	hectares		hectares		hectares		hectares	
Registered	24,786	19,858	20,228	35,040	64,082	514,828	2,262	9,590
Completed	1,736	5,496	518	960	5,916	52,654	225	451
Pending	1,695	2,096	2,739	5,391	9,650	69,313	176	1,051

T. B.

PORTUGAL.

MEASURES FOR BRINGING UNDER CULTIVATION UNCULTIVATED LAND CAPABLE OF BEING FARMED. — DECRETO N. 7933, PROMOVENDO O APROVEITAMENTO DE BALDIOS E DE INCULTOS, *Diário do Governo*, Series I, No 255. Lisbon, 16 December 1921.

By the Decree No. 7,933, dated 10 December 1921, the Portuguese Government has adopted sundry measures, intended to bring under cultivation lands capable of remunerative cultivation, which at present lie waste and unused, for the most part in the hands of private persons.

These measures relate to :

(a) rural common lands under the administration of municipal councils or parish councils, the use of which is enjoyed by the inhabitants of the surrounding district, according to traditional local custom ;

(b) rural lands which are not as a matter of fact utilized by the inhabitants of the locality though they have the right of doing so ;

(c) uncultivated land, whether public or private, which is cultivable but has not been cultivated, nor broken up, nor utilized in any way over a period of seven years.

Common Lands. — The Law first defines more exactly what is meant by common rights, stating that it consists in rights of pasturage, of planting or maintaining woods from which firewood or building material or wood for carpentry may be obtained by the inhabitants of the locality, or rights of utilizing the land in any way for which it is fit, provided always that this use does not carry with it the appropriation of any part of the land, or is incompatible with the common advantage of the inhabitants.

The law in question provides that common lands which are regarded as being more than are necessary for the purposes of such utilization and are adaptable to cultivation may be granted, provided they are not devoted to afforestation, in emphyteusis by the municipal councils to all the inhabitants who make application for it, such lands being divided into as many plots as there are families of inhabitants.

The plots are then drawn for by those who take them, and in the case of any householder not wishing to participate, or of his refusal to take up the land on the conditions laid down, the plot which would have fallen to him passes into the category of unassigned land and becomes the property of the municipal councils.

The emphyteusis agreements will be made on condition that the grantees work and make use of the land within a maximum limit of two years, counting from the date of the agreement, and that they become members of some undertaking, company or co-operative society legally constituted, which is formed with the object of cultivating or otherwise utilizing in accordance with the decree an extent of land of which these plots form part.

Further the law grants to any individual, company or co-operative society legally constituted the power to rent any of these plots, so given in emphyteusis to the inhabitants of the district, provided that a year has not elapsed since the emphyteusis agreement, or, if it has elapsed, then provided that the holder in emphyteusis has not taken in hand the cultivation of the land nor the erection of any building.

The land applied for must not be less than 100 hectares, except in the case in which the belt including these lands and the uncultivated lands is not of that extent : moreover, no private property must be included in the lands applied for.

The application for this concession, in addition to the customary formulae, must contain a statement of the number of the plots desired by the applicant, the names of the holders in emphyteusis, and the amount of the annual rent offered for each plot.

On receiving the application, the council is to call together all the householders to whom the plots belong by right, giving the utmost publicity to the meeting, whether by notices in the local papers or by placards on the

doors of the municipal buildings, parish churches, or elementary schools, in the district in which the said lands are situated.

On the basis of an understanding between the holders in emphyteusis and the would-be tenants as to the amount of the rent, the lease is to be drawn up. If such an agreement is not possible between the applicants and all or some of the holders, the rent is to be fixed by three arbitrators, and finally, if the rent offered by the applicant is not accepted by a certain number of the householders, arbitration must in this case also be resorted to, the arbitrators being chosen by agreement from among the inhabitants themselves, or if an agreement cannot be come to, by the chairman of the executive committee. The two parties must keep to the rent fixed by the arbitration, and if the lease is being signed within three days of the arbitration, the holders in emphyteusis who refuse to sign lose the claim to the emphyteusis, and the ownership of their plots reverts to the municipal councils, while, if it is the applicants who refuse to sign, a fine of ten per cent. of the proposed rental of the lands is imposed on them and is paid to the municipal councils. Bodies renting such lands, granted in emphyteusis to the inhabitants, are under an obligation to employ the services of these same inhabitants for the agricultural work undertaken by them, giving them the preference over all other cultivators.

The leases are drawn up for a term of not less than 30 years, and the rents must be paid on 30 September of each year, and are subject to an increase of 25 per cent. after the first ten years and of 50 per cent. after 20 years.

The holders in emphyteusis who obstruct or impede in any way the free working of the plots or lands leased, lose their claim to this increase: as also those who cause damage to plants or sown lands, etc., lose the claim to the rent, which falls instead to the municipal councils, who employ the money in the way provided by the law.

If organizations or undertakings should desire to gain possession of these lands by cession or participation, they must state on the application presented to the municipal council, the basis of the contract, and at the meeting called as mentioned above, the chairman of the committee will endeavour to bring about an arrangement between the parties concerned, in respect to the said cession or participation, and when such an understanding is not possible an agreement to rent the lands may be made in the manner laid down by the Decree.

Rural Lands over which Common Rights do not Exist or are not Exercised. — In respect to land left uncultivated and abandoned, or lands of the right to use which the inhabitants of the locality have not availed themselves, the law provides that they are to be regarded as the property of the respective municipal councils which, in order to utilize them for the purpose intended by the law, shall sell them to whatsoever individual, corporate body, undertaking, company or co-operative society legally constituted may apply for them, undertaking to cultivate them and to render them immediately productive.

The sale of the said lands shall be held by public auction by the muni-

cipal councils taking as a basis of price one of the plans submitted by the applicants for bringing these lands under cultivation, or of a part of these when they constitute a complete whole. When, however, the municipal councils do not come to a decision within three days from the submitting of the proposal above mentioned to carry out the sale, the lands pass to the State, which, acting through the Agricultural Development Committee (*Junta de Fomento Agrícola*) can sell it, lease it or grant it in emphyteusis, according to the provisions of Article 8 of Decree No. 6,962 dated 23 September 1920 (1).

The sums realized by the municipal councils from the sale or the grant in emphyteusis of the lands, as well as the rents received, are to be immediately paid into the General Deposit Bank, remaining at the disposal of the councils. These can devote such sums to the building of schools, of fountains, of roads, etc., in localities in which the inhabitants have had the enjoyment of the right of use over the lands in question, retaining five per cent. of the sums, as reimbursement for the expenses incurred in the organization of the cadastral survey in each commune.

The Law also lays down special regulations for the cultivation or utilization of some part of the lands in question, for which an individual, corporate body, or co-operative society legally constituted can make application.

Rural lands of whatever kind, granted in emphyteusis previously to the law, whether by municipal or parish councils, and land already constituting a private estate in virtue of an agreement duly signed or of prescriptive right or legal ownership, are to continue to be utilized and occupied on the same conditions.

Marking out and Division of Uncultivated Lands. — The Law lays down special provisions as regards the organization of the cadastral survey of uncultivated lands, whether they are common lands or not, with a view to marking them out and dividing them.

In this survey there must be shown, for all uncultivated land, its situation, the locality the inhabitants of which enjoy common rights over it, the number of the inhabitants, the boundaries, the approximate average length and breadth, the number of lands under cultivation, etc. It should besides be shown if in the land over which common rights are exercised there is any part not essential to such use and capable of cultivation, a statement being made as to the most suitable type of cultivation. There must finally be a return made of the area of land suitable for afforestation. When the cadastral survey is made it is to be sent to the Ministry or Agriculture by the respective councils, accompanied by statements as to the value of the lands, as to the possibility of utilizing them and in what way, and as to the most practicable scheme for reconciling the various

(1) Article 8 of Decree No. 6,962 gives power to the Agricultural Development Committee to acquire, by purchase or otherwise, any land rural or urban and to sell it, lease it, or grant it in emphyteusis, devoting the proceeds of the sale to the Agricultural Development Fund (*Fundo de Fomento Agrícola*).

interests and avoiding disputes. It is the business of the Government to communicate to the municipal councils through the medium of the Ministry of Agriculture any corrections to be made in the survey, or on the other hand its approval, and to nominate a committee to proceed in each commune to the marking out and division of the said lands.

All the expenses incurred in regard to this will be paid through the Ministry of Agriculture out of the *Fondo de Fomento Agrícola* which will in its turn be reimbursed by means of the sums that result from the sale of the lands, paid to the General Deposit Bank.

If thereupon any undertaking, company or co-operative society legally constituted, should propose to buy uncultivated lands, the marking out of which has not yet been carried out pending the nomination of the appropriate committee, it is open to them to make application to the Ministry of Agriculture, and to request it to proceed without delay to the said nomination, which will have the precedence over all other nominations, on the understanding that the works are begun within a fortnight after the nomination. Besides the documents proving their legal existence, their financial position and liabilities, the said undertakings should indicate the area and situation of the uncultivated lands which they wish to purchase, as well as the way in which they intend to utilize it. When the said lands are not of any great extent, or where an agreement as to the immediate bringing of it under cultivation is possible between the municipal councils, the inhabitants and the interested persons, the Law lays down that the intervention of the committee should be dispensed with and that the marking out and division may be done by the respective municipalities subject to the approval of the Government.

Cultivation of All Uncultivated Lands Capable of being Brought under Tillage. — The Law deals lastly with all those lands, whether public, private or communal, remaining untilled, which can be adapted to the growing of cereals or to afforestation, and it is laid down that such lands must be utilized in one or the other way within as short a time as possible. For this purpose the Law regards as untilled all lands which have not been cultivated or broken up within the last seven years nor in any way utilized whether for public or other purposes.

A survey taken for the purpose classifies these lands under three categories: public, communal and private, with further indications similar to those given in the case of other lands.

Organization of the Survey of the Lands in Question. — A special committee will be nominated by the Government in each district to organize the survey of these lands. This committee will receive assistance in its work from the Treasury Department and from the Financial Sections of the districts and municipalities, from the Forestry Department, from the municipal councils, from the parish committees and from all other administrative bodies able to furnish any information which it may require.

On the survey being organized, any undertaking, company or co-operative society wishing either to purchase or to rent the said lands for a period of more than thirty years but not exceeding forty years or to hold

it in emphyteusis or as a grant or in participation must apply to the Government in the case of public untilled lands and to the municipal council in the case of untilled communal lands.

The area of the lands that are to be brought under cultivation by these bodies may not be less than 100 hectares, except when the extent of the untilled part falls short of this figure. This total of 100 hectares will not include any private land that may happen to come within the area, but it may be made up by untilled lands of another kind.

All moneys received under the terms of agreements made with the municipal councils are paid to the General Deposit Bank, from which the Agricultural Development Committee may recoup itself to the amount of the expenses paid out of its funds for the organization of the survey of the lands of this kind. The remainder will be at the disposal of the municipal councils, who can devote it at choice to works of public utility, etc.

When any such business undertaking or co-operative society has made application to cultivate or utilize untilled lands belonging to private individuals and not less than 100 hectares in extent, and the owners or holders have refused to sell it, to grant it in emphyteusis, to let it on a long lease, to give it up or to hold it jointly with the said undertakings such owners or holders will be obliged to cultivate the lands themselves within the term of one year, dating from the application made by the said bodies, who will give notice of this to the Agricultural Development Committee.

If at the expiry of a year the lands have not yet been brought under cultivation, the said undertaking or co-operative societies may require the Agricultural Development Committee to order the sale of them by auction.

The price offered by these bodies per hectare shall serve as the basis of the sale and will form the reserve price.

The proceeds of the sale will be paid into the General Deposit Bank and the Committee will draw on it for the amount of the expenses incurred: the remainder will be at the disposal of the previous owner or holder, whether in emphyteusis or otherwise.

For ten years, dating from the publication of the decree in question, all the lands falling under terms of the decree are or will become the property of persons or bodies having the intention of cultivating or utilizing it in some way, in relation to the decree issued, such lands remaining exempt from land tax. In the same way there are exempt from payment of business taxes for fifteen years all persons or bodies, already constituted or to be constituted for one of the purposes above indicated. Further the first contracts for sale, emphyteusis and tenancy are exempt from registration and stamp tax. The rents of land granted in emphyteusis are paid in three instalments as soon as half the lots adjudged have been worked or submitted to some kind of tillage.

The importation of implements and machinery required for tillage is also exempt from duty, as also of what is required for the working of machinery for the manufacture of artificial manures, if the machinery is not

made in Portugal. The Law also grants free transport on the State railways for all machines, agricultural implements, live stock, etc.

Grants in Aid Made by the State — With the object of giving subsidie and all necessary assistance to the intensive and speedy cultivation of the lands in question, the Law gives power to the Agricultural Development Committee to contract loans guaranteed by the State and by its own incomes. It further declares applicable to the said lands all the exemption, guarantees and subventions, granted up to the present by laws and decree in favour of national agriculture.

Power is granted to the State and to municipal councils to take part in the business undertakings referred to by the decree, as shareholder or in some other capacity more conducive to their interest and to banks and insurance companies to earmark their reserves for the purchase of lands of the nature indicated.

The cereals produced on these lands will not be subject, in the contracts signed by the growers, to any restriction as to return, or free transport of any other kind.

The Law further extends all the advantages above mentioned to those bodies that have received from councils grants of tenancies, or will may be in possession of untitled lands of any kind whatever, provided that they make application for it within three months of the publication of the decree and conform to the arrangements there prescribed.

Lands having no claim to these advantages are such as while being cultivated in accordance with the current decree and having a system of rotation of crops may be keeping some portions fallow for a period longer than three years.

The Law further provides that persons, companies or co-operative societies which have acquired under one or other of the prescribed forms rural untitled lands are under the obligation of setting on foot cultivation and management of the lands adjudged to them, within three months dating from the day of adjudication, of cultivating and managing five per cent of the area of the land in the first year, ten per cent in the second year, 25 per cent in the third year, and 30 per cent in the fourth and fifth year and to have cultivated, at the end of eight years, all the lands fit for cultivation and utilization.

Infringements of the above regulations will be punished by fines that will go to the Agricultural Development Fund.

It is finally laid down that, if after eight years from the adjudication the lands have not been completely cultivated, they will be considered as forfeit and will pass into the ownership of the Agricultural Development Committee without any claim to compensation for improvements. E. F.

MISCELLANEOUS QUESTIONS

BRAZIL.

THE ECONOMIC ORGANIZATION OF AGRICULTURE.

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§ I. COLONIZATION.

In a previous article on the economic and agricultural development of Brazil (1) we saw how that country, by reason of the fertility of its soil, of the extent of its forests, of its incalculable mineral wealth and of its waterfalls capable of producing inexhaustible motive power for industry, agriculture and transport, offers the most varied possibilities of development in all fields of activity. At the conclusion of that article we affirmed that Brazil was well on the way to a brilliant economic future, which it will reach the more readily if it has at its disposal the labour necessary for the development of its immense resources (2). The Federal Govern-

(1) *International Review of Agricultural Economics*, January-February 1921.

(2) The population of Brazil, according to the recent Census, was 30,635,605 on 1 September 1920, as compared with 17,318,556 in 1900, 14,333,925 in 1890, and 10,112,061 in 1872. The area of Brazil is 8,497,540 square kilometres.

ment is well aware of this and in order to facilitate as much as possible the development of those resources it has sought to bring its legislation more and more into conformity with the principles and methods of modern nations, has granted ample facilities to undertakings for the exploitation of the natural wealth of the country, both agricultural and mineral, has given every possible facility to the visitors and students who have come from all parts of the world, and has carried out a liberal policy with a view to populating and colonizing the country (1). As a result of this policy almost all the countries which have a surplus population now direct their emigration with increasing intensity to the various States of Brazil, so that while the total number of immigrants between 1908 and 1919 only amounted to 1,015,873, in the two years 1919 and 1920 it amounted to 3,576,275.

In regard to the immigration and colonization policy under the Republic three periods may be noted. The first of these is the period between the beginning of the new regime and the promulgation of the Federal Constitution, that is from 15 November 1889 to 24 February 1891; the second period is from the latter date to 24 December 1894, when a law was voted whereby all the services relating to this important branch of public administration were transferred to the separate States; the third period begins with the Decree of 19 April 1907, No. 6,455, which again assigned to the Federal Government the direction of the services of immigration and colonization, though allowing to continue those which had been established in the meantime by the various States.

The most interesting provisions of this Decree, which lays down and explains the policy of the Federal Government in this matter, are those relating to the foundation of colonies or villages for the families of agriculturists who come to settle in the country.

The colony or nucleus of colonization — we reproduce the precise definition given by the Decree — is a group of parcels, measured and divided with clearly indicated boundaries, of selected lands which are fertile and suitable for agriculture or grazing, are salubrious and have abundance

(1) The eminent Brazilian jurist, Dr. Xavier da Silveira, writing of the "rights and advantages which the constitution and laws of Brazil guarantee to foreigners," remarks that they are exceedingly liberal. "No country has extended to foreigners more fully or more effectively the personal guarantees which are so lavishly conferred upon its own citizens. As long as he retains his original nationality, the foreigner in Brazil enjoys every privilege except the exercise of political rights; as soon as he is naturalized and has resided in Brazil for the prescribed period he is invested with all those rights, with the sole exception that he remains ineligible for the Presidency or Vice-Presidency of the Republic. Moreover foreigners, even when they are not naturalized, can publicly and freely perform any worship or profess any religion, whether they join together for that purpose or not, and may acquire any property, if, according to the provisions of the ordinary law, they have the right of meeting and of association. They enjoy the rights of the free expression of thought, of representation before the public authorities, of denouncing abuse of authority, of prosecuting guilty persons, of entering and leaving the national territory in time of peace with their own possessions when and how it may suit them; and all the other rights without exception, which the constitution recognizes to Brazilians. All persons, Brazilians and foreigners, are equal before the law and no one can be compelled to do or not to do anything, except in accordance with the law".

of water for the various needs of the population. Each parcel must contain a sufficient area fully to employ the settler acquiring it, and must be served by roads which allow of ready and easy transport, and must be in a favourable position suitable for the settlement of immigrants as owners. The Decree itself lays down that those localities are to be preferred for the foundation of colonies which combine the following conditions: (a) a suitable altitude and land adapted to general cultivation; (b) a situation adjoining or close to railways, or rivers on which there is a service of steamboats, and near centres of population in which the owners of the lots of land can find a profitable market for the produce of their labour; (c) abundance of running water for the domestic use of the occupants of the lots, for watering stock, for irrigation and for agricultural and industrial purposes; (d) configuration and soil which allow of the application of mechanical agricultural processes; (e) existence of forests, on the spot or in the neighbourhood, which favourably influence the climatic conditions and the productivity of the region and ensure to the colonies a supply of wood for building and for other purposes and the necessary fuel; (f) sufficient area for the enlargement of the colony, so that the direct descendants of the first immigrants settled in it, the members of their families or persons of their acquaintance who have not yet come to the country, if sent for to settle in the colony, may become owners of land in the colony itself or in its immediate neighbourhood.

If the position and the importance of the colony require the formation of an administrative centre, a sufficient area must be reserved for that purpose in the flattest part of the district, provided always that it enjoys the necessary conditions of salubrity.

In each colony lots are also reserved for the construction of public buildings and for purposes of general interest.

The lots are classified as rural and urban (1). Rural lots are those intended for agriculture or stockbreeding. They are usually of an area not exceeding 25 hectares if the colony stands beside or near a railway or a river on which there is a service of steamboats, but in other cases the lots may be as much as 50 hectares in area. Ordinarily in each rural lot a house is constructed as a residence for the immigrant and his family and is afterwards sold to the immigrant at cost price. There are, however, lots on which there are no houses for those immigrants who may wish to build them on their own account. In such cases a temporary dwelling is provided for the settler and his family.

The rural lots, averaging 25 hectares in area, are sold at prices varying from 8 to 30 *milreis* (2) the hectare; the settler must pay the price at once if he is a bachelor, but the payment is deferred if he has a family. In the former case he is given a definite title to the land; in the second case, a provisional title which will be converted into a definite title as soon as the payment of the purchase price has been completed. The payment

(1) Urban lots are those in the administrative centre of the colony, intended to form the future town or village.

(2) The paper *milreis* is equal to 1.68 francs at par.

is made by instalments covering a period of five to eight years, the first instalment being payable in the third year.

Other facilities are granted to the newly-arrived immigrants. They are allowed to travel without charge to the colony; they are given food for some days, work is found for them, either for wages or in the form of small contracts, in the construction of roads or in other services in the colony for a period of six to eight months, the work being so distributed that each head of a family may do about 15 days' labour each month and earn thereby enough to maintain his family until the first harvest. They are given medicines gratuitously during the first year and gratuitous medical attendance during all the period preceding the "emancipation" of the colony (1), they are supplied gratuitously with the principal implements required for their work, and seeds and seedlings are periodically distributed to them.

Stores of food and other necessities are kept in the colonies and there are also schools for elementary agricultural instruction, experimental plots directed by agricultural experts who advise the immigrants in the choice of the crops which they can most profitably cultivate and of the methods of cultivation to adopt, as well as a postal service and a medical service and a dispensary.

Provision is also made for the organization of shows and fairs of agricultural and industrial products, with prizes for those who most distinguish themselves or in any way display their superiority over others.

Many flourishing "nuclei of colonization" have been organized by the Federal Government on the lines described with a view to making them model villages, small centres of activity for the up-to-date practice of agriculture in the districts adjoining the lines of communication.

The States, too, particularly the southern States, which enjoy a temperate climate, have established and continue to establish "nuclei of colonization" on their own account, with or without the aid of the Union.

From the important Message presented to Congress in July 1921 by the President of the State of S. Paulo, His Excellency Dr. Washington Luis Pereira de Souza, it appears that in 1920 there were in that State seven "nuclei of colonization" not yet "emancipated," with an area of 49,169 hectares, of which 17,257 were cultivated. The produce of these colonies in 1920 was valued at 5,844,687 milreis, and consisted principally of rice, maize, beans, coffee and potatoes. And it may here be mentioned that by the Law of 4 December 1915, No. 1,481, premiums were instituted for the settlers who obtained the largest and best production of cereals in the years 1916 to 1918.

The aggregate population of the seven colonies amounted to 16,641 inhabitants (11,006 Brazilian and 5,635 foreigners) thus classified: rural population, 12,675; urban population, 3,654; suburban population, 312.

The rural properties were valued at 2,546,640 milreis and the urban

(1) The colony is declared by the Government to be "emancipated" as soon as there is no further necessity to give special aid to the immigrants settled in it.

properties at 2,243,180 milreis. In the seven colonies there are 39 schools. At the end of the year to which the Massage relates the colonies of Conde Parnahyba, Nova Veneza, Martinho Prado Junior, Nova Europa and Nova Odessa were "emancipated" (1).

In the State of Rio Grande do Sul, as might be expected from its flourishing condition, there has been a constant development of "nuclei of colonization". Almost all the settlers have paid for their lots of land, thus becoming independent owners; there is not a family which has not its own house and its own stock. Wheat and maize, beans, potatoes, rice, lucerne, vines and sugar-cane are often found cultivated in the same lot. This variety of products ensures to the settler an almost fixed annual return. The sanitary conditions are good, thanks to the mild climate and to the situation of the colonies on hills and table lands.

In Paraná there are the following federal colonies: Vera Guarany, Itaparã, Jesuino Marcondes, Ivahy, Tayo, Cruz Machado, Senador Correia, Apucarana. They number about 20,000 inhabitants. Some have already been "emancipated".

The State encourages colonization by giving facilities to settlers to acquire lands assigned for the purpose by the Federal Government or from private undertakings, or by assisting the communes to give such facilities, or by itself acquiring land to grant to settlers. Law No. 1,642 of 1916 fixes the conditions upon which lands may be granted to private persons; in accordance with the terms of this law 1,100,000 hectares have already been distributed, which will allow of the settlement of at least 20,000 families.

The State of Minas Geraes, endowed as it is with large areas of exceedingly fertile land in which the most varied forms of cultivation can be profitably carried on, offers a very wide field for colonization and the Government has devoted considerable sums to this purpose. The area intended for agricultural colonies is divided into lots each approximately 25 hectares in extent. The price of the lots is fixed in advance, according to the locality, on the basis of the value of the lands and of the improvements carried out on them (clearing, sowing, building of the house). The settler is expected to pay the price by means of annual payments, in kind or in money, equal to 20 per cent. of the total production of the year. As soon as he is settled on the lot, the settler receives the provisional title which guarantees him the possession of it on condition that he carries out the duties prescribed by the regulations of the agricultural colony. When the price has been fully paid he receives the definite title which confers upon him the

(1) Recently a law has been passed in this State (No. 1,844, dated 27 December 1921) which permits the alienation of the uncultivated public lands. The Government is authorized to make free grants to citizens of the State or to foreigners domiciled therein of 500 hectares of cultivable land or 4,000 hectares of pasture land or 50 hectares of land in the neighbourhood of towns. Lands necessary for the national defence, or for the conservation of the springs, rivers, flora and fauna of the country are excepted from sale. The expenses of the grant are at the cost of the grantee. In regard to this matter see the *Boletim do Departamento Estadual do Trabalho*, Nos. 40 and 41, S. Paulo, 3rd and 4th Quarters of 1921.

ownership of the lot with all the improvements which have been made upon it. It was stated in the Message addressed to the State Congress on 14 July 1920 by the President of the State, Dr. Arthur da Silva Bernardes, that there were at that date 22 "nuclei of colonization" in the State, of which 14 were "emancipated"; the 22 colonies had a population of about 35,000 inhabitants and the produce of the agriculture and stockbreeding carried on in them was valued at 10,178,218 milreis. The colony of Inconfidentes has developed wonderfully and is in perfect working order. Other agricultural colonies are being formed.

Recent and complete figures relating to the "nuclei of colonization" are not obtainable; even for the States in which colonization is most active the statistics are incomplete. The following information relating to 1920 is taken from the Message of the President of the Republic presented in 1921, on the occasion of the opening session of the 11th Legislature.

In the year 1920 the population of the "nuclei of colonization" was 41,722. The number of rural lots which had been surveyed and marked out was 9,371 and the number of urban lots, 3,055. Of the rural lots 4,297 had been completely paid for and 2,413 had been partially paid for; of the urban lots 1,185 had been completely paid for. The agricultural produce obtained by the settlers amounted to 12,903,897 milreis and the value of other produce to 7,308,428 milreis, making a total of 20,212,325 milreis, as compared with 17,956,189 milreis in 1919 and 16,333,852 milreis in 1918.

The produce resulting from stockbreeding amounted to 7,955,941 milreis as compared with 6,770,050 milreis in 1919 and 5,639,795 milreis in 1918.

In 1920 the settlers paid to the public funds, for lots of land, houses, improvements and assistance of various kinds, the sum of 804,128 milreis as ordinary revenue and 1,283 milreis as extraordinary revenue, as compared with 621,819 milreis in 1919. The normal revenue of the colonies may be estimated at 500,000 milreis and it will be seen that this figure was exceeded by 304,128 milreis. In the years from 1918 to 1920 the ordinary and extraordinary revenue amounted altogether to 2,965,806 milreis.

It is noteworthy that the Immigration Office is steadily developing the work of colonization in the north of Brazil. The Government of the State of Pernambuco has already assigned for this purpose the lands which formed the former agricultural centre of *Agua-Preta* and the States of *Parahyba* and *Bahia* have placed at the disposal of the Ministry of Agriculture large areas which are now being examined by experts. An interesting plan of colonization has been adopted by the State of *Bahia* (1), which, particularly in the districts of *Jequié*, *Maracás*, *Morro do Chapéo* and *Jacobina*, offers specially favourable possibilities of development. In other States of the North-west (*Ceará*, *Rio Grande do Norte*) the work of organ-

(1) RELATORIO APRESENTADO AO EXM. SR. DR. J. J. SEABRA, GOVERNADOR DO ESTADO, PELO ING. JOSÉ BARBOSA DE SOUZA, SECRETARIO DA AGRICULTURA, INDUSTRIA, COMMERCIO, VIAÇÃO E OBRAS PUBLICAS DO ESTADO DA BAHIA. ANNO DE 1920. Bahia, 1921.

izing "nuclei of colonization" on lands offered by the State Governments is being actively carried on (1).

The formation of colonies certainly involves very considerable expenditure, both in the selection and marking out of the districts to be assigned to the immigrants, in the preparation of the lands and in the organization of the various public services, but the Federal Government and the State Governments willingly incur this expenditure, as they see in the colonies an effective means of promoting the *coroamento do solo*, that is to say, supplying the necessary factors for utilizing the inexhaustible fertility of those vast regions.

§ 2. THE "FAZENDAS".

Besides the "nuclei of colonization," in which the immigrants, supported by the aid furnished by the State, can make a position for themselves as independent agriculturists, the "fazendas," which, as is well-known, are the institution most characteristic of Brazilian rural economy, give a large amount of employment to labour. The "fazendas" are large agricultural undertakings, run on industrial lines, usually for the production of coffee, in which the technical equipment "is the best possible imaginable to ensure the production of the crop to the fullest extent and in the most convenient way"; there are others in which special crops are cultivated, such as sugar-cane and cotton, but those for the cultivation of coffee are the most numerous and the largest and furnish employment to by far the greater number of immigrants. It is of these, therefore, that we shall principally speak.

Let us consider more closely this characteristic institution, what it is, what is the kind of work carried out on it and under what conditions the work is done.

In the midst of the plantation rise the buildings of the *fazenda*, formed by the line of cottages of the workers, all uniform and in line, and by the group of buildings including the house of the *fazendeiro* and of his manager, the *engenheiros*, the *venda* and the *terreiro*.

The house of the *fazendeiro* has only one story but it is raised above the level of the ground; the roof projects beyond the external wall, so as

(1) The State of Pará possesses a large area of "assigned lands" which it grants or sells in conformity with the laws relating to the public lands. These laws authorize the free grant to settlers, after a year's residence, of 25 hectares of land, already surveyed and marked out, in the district served by the Bragança Railway. In any district free grants of 100 hectares of agricultural land may be made to persons who do not own any land in the territory of the State. In the Guayana region of the State of Pará, on the left bank of the River Amazon, lots of 100 hectares can be granted in like manner to any one who can show that he is in a position to cultivate it, and the provisional title is converted after two years into a definite title. The State also values lands and sells them at prices varying according to their quality and situation. See: FREITAS VALLE (Dr. Eurico): *El Estado del Pará*, in *La Nación*, (Supplement for the First Centenary of the Independence of the United States of Brazil) Buenos Aires, 7 September 1922.

to form a veranda, from which the planter can overlook a great part of the property.

The workers' cottages, formerly built of a variety of different materials, are now usually all built of brickwork in accordance with sanitary rules, which have been spontaneously adopted by the more enlightened *fazendeiros*; they usually have one door and two or three windows; the upper part is so constructed as to give plenty of ventilation. In the larger *fazendas* the workers' quarters are generally well arranged. Behind the cottage is a strip of land on which the worker cultivates vegetables for his family and raises a few head of stock.

The *engenhos* are the buildings in which the manipulation of the produce takes place, that is the washing, the removal of the parchment and other operations to which the coffee is subjected, or the crushing of the sugar-cane. There are also workshops for various industries, notably those connected with timber, which is furnished in huge quantities and in great variety by the immense forests.

The *torreiro* is the yard made of cement or earth for the washing and drying of the coffee.

Other buildings are occupied by the *venda*, the central store in which can be acquired food and other goods, and in some *fazendas* there is a church and a school. Sometimes, too, there are clubs or places for recreation.

In the more important *fazendas* the buildings have the appearance of a village and therefore, besides the buildings mentioned, there are found others for the accommodation of the various services required by the most progressive development of an agricultural and industrial centre, amongst these being the sanitary service. A notable example is the *fazenda* of Guatapar  (S. Paulo), which has a railway, schools, a church, a hospital, a restaurant, a cinematograph and many other conveniences; in this *fazenda* thousands of workers are employed in the cultivation of coffee, sugar, cotton and rice.

The coffee and sugar when they leave the *fazenda* have no need of further manipulation and are carried directly to the market on large carts.

The coffee and sugar plantations have been made on soil formerly covered by the virgin forest; the rich vegetation was converted into a mass of ashes and charcoal which formed the best preparation of the ground for the *cafezal*. In the midst of the recently formed *fazendas* may still be seen the blackened trunks of huge trees. In the new coffee-growing districts, behind the dwellings of the workers extend the vast dense woods still untouched by the hand of man.

In the *colheita* or gathering of the coffee crop all the members of the worker's family are employed, including the boys, who are useful in gathering the berries which the adults cannot reach.

The berries are measured by *alqueiras*, a measure which varies somewhat in different *fazendas* but generally contains 50 litres.

Many operations follow the gathering of the crop; the coffee beans are separated from the pulp and the outer envelope, they are washed to re-

move the mucilage, which still adheres to them, they are dried and graded according to quality. Some of these operations are carried out in the *terreiro* and some in the *engenhos* in which the machines are usually worked by steam power; some *fazendas* even have electric motors.

In the production of sugar, which is most extensively cultivated in the State of Pernambuco and is also largely cultivated in the States of Rio de Janeiro, Sergipe, Alagoas, Bahia, and Parahyba, agriculture and industry are even more closely associated than in the production of coffee as a large investment of capital is required for the machinery. In the State of S. Paulo, which is the leading State for coffee-growing, sugar-cane is not cultivated on a large scale, but it gives excellent results, and some *fazendas* are almost exclusively devoted to its cultivation.

The plantations ordered with intelligent care, the immense yards, the stores and the workshops in which the machines are at work grading the produce, the stables and cowsheds kept with watchful care, where the animals are bred and flourish, every thing is usually regulated "almost with a sense of external elegance" (1), so that the visitor really has the impression that the organization of the *fazenda* has in some cases reached, after a long and laborious process of transformation, a high degree of perfection.

As to the conditions of employment of the workers, it may be noted that their wages are fixed on the basis of a yearly agreement, which is sometimes merely verbal (2). Generally the worker in a coffee plantation, which is the typical *fazenda*, receives today a wage which varies, according to the district, from 100 to 150 or even 200 milreis per thousand plants cultivated (cleaning the land, weeding and pruning the shrubs), together with between 600 and 500 reis for every *alqueira* (50 litres) of coffee berries gathered. He is also allowed, in almost all the plantations, to cultivate maize, beans and vegetables for his own benefit, either in a strip of land which, as we have seen, the *fazendeiro* assigns to him, or between the lines of coffee trees.

The conditions of the workers in the large *fazendas* covering several thousands of acres and belonging to wealthy landowners are of course better than those of the workers on the small *fazendas*. However, there is a tendency at the present time to pay the workers better, in view of the great need of labour. Among the reasons which latterly have contributed appreciably to improve their condition may be noted the following: 1. the increase which has taken place in the price of coffee since 1911, after ten years of very low prices; 2. the extension of coffee-cultivation, which has increased the demand for labour in proportion to the supply; 3. the development since 1915 of the cultivation of subsidiary crops, such as maize, beans, cotton and rice, and of stockbreeding, a development which

(1) EMIGRAZIONE AGRICOLA AL BRASILE. Relazione di una Commissione di studio italiana. Bologna, 1912.

(2) GUIDA (Dr. Ugo): L'emigrazione italiana pel Brasile. Realtà e prospettive. Rome, Tipografia delle Cartiere Centrali, 1921.

marked a new era in the agricultural history of Brazil. It should be noted that the cultivation of subsidiary crops gave very large profits, especially in 1916 and 1917, from which great advantage resulted to the workers, who had previously attempted to cultivate them, but sporadically and with indifferent results.

The public authorities, too, have taken steps to protect the agricultural labourers against possible abuses on the part of the *fazendeiros*. Amongst the provisions made for this purpose we may mention two typical laws, that of 5 January 1904, No. 1,050, which gave to the workers, as security for the remuneration due to them, the right of distress on the crop of the year in which they gave their labour, and the Law of 27 December 1911, No. 1,290, which created in the State of S. Paulo the *Patronato agrícola*, an office which watches over the rights and interests of the workers. This office receives applications either directly from the parties concerned or from the consuls or other authorities or persons who interest themselves in them, makes the necessary inquiries, tries to bring about friendly settlements, or, if necessary, takes action before the courts, and conducts the cases gratuitously (1).

By gradually improving the working conditions offered and by carrying on an active propaganda to make better known and appreciated the possibilities of advantageous employment in agriculture and in other branches of economic activity the Government of Brazil has always sought to encourage more and more the immigration of labour, and to this end it has also concluded special international agreements which are admirably adapted for regulating, on up to date principles, the great economic and social phenomenon of emigration. Of these agreements the labour treaty between Italy and Brazil of 8 October 1921 is the most recent and the most striking example. It establishes equality between Italian citizens and Brazilians in regard to compensation for accidents during labour; it recognizes the complete validity of individual and collective labour agreements concluded in Italy and pledges the two Governments to give every facility for the making of understandings between Italy and the various States of Brazil with regard to the conditions of the workers. The Federal Government also undertakes to watch over the observance of the labour agreements, to protect the immigrants and to facilitate the organization of co-operative societies for distribution, credit, production, labour, thrift and mutual aid amongst the Italian labourers, as well as the work of the Italian societies which may be formed for the benefit of the immigrants. All the facil-

(1) The *Patronato agrícola* of S. Paulo employs a certain number of lawyers at its head office in the capital and more than a hundred *promotores públicos* in the interior of the State. In 1920 applications were received from 423 workers who were heads of families, relating to 724 workers of different nationalities and 68 *fazendeiros*. The *Patronato* has been working since January 1912 and its activity grows steadily as it becomes better known by the workers. Since its formation it has dealt with 4,277 disputes involving about 6,000 *contos*. It endeavours, by preference, to bring about friendly settlements and in this way has produced excellent results; only rarely, when friendly negotiations break down, does it take legal proceedings.

ities granted to immigrants from other countries will be granted also to Italian immigrants.

We may remark that this labour treaty, based on the principles indicated, regulates in a manner satisfactory alike to the Italian emigrants and to the employers of labour in Brazil, the economic relations between the two countries, making it possible for the Italian emigrants to assist in the development of that immense country and to derive very considerable advantages from it. It is a result of the fuller recognition on the part of the governing classes in Brazil of the great value of the immigrants in furthering the present development and building up the future wealth of the various States of the great South American Confederation.

§ 3. AGRICULTURAL CREDIT.

In examining the Presidential Messages for the States of Brazil in which agriculture and stockbreeding are most widely diffused and glancing through the principal Brazilian periodicals which deal with rural economy, it is easy to see how great an interest is roused in Brazil by the problem of agricultural credit. It is often the subject of lectures in which eminent economists explain the credit systems which are in operation in Europe and these systems are also studied by the Federal Government, which now realizes the urgent need of introducing into Brazil a real banking organization capable of systematically supplying to agriculture the means of which it has need for its full development (1). Here and there, too, special schemes have been initiated. Thus the Government of the State of Rio Grande do Sul, one of the most prosperous of the States, has, amongst other projects, proposed the creation of a credit bank for agriculture and stockbreeding with a view to fostering the development of these two principal sources of the wealth of that State. The Government of the State of Pará, on the other hand, has recently authorized the creation of an agricultural credit bank, particularly for the purpose of granting loans for rubber plantations.

But the State which is by far the most interesting in relation to agricultural credit institutions is that of S. Paulo, the most active of all the States in economic matters. In that State the Bank of Mortgage and Agricultural Credit, the "economic banks" and the "popular credit banks", all provide for placing at the disposal of agriculturists and manufacturers, at a moderate rate of interest, the funds which they require.

The Bank of Mortgage and Agricultural Credit was established, in conformity with Laws No. 923, of 8 August 1904, and No. 1,160, of 29 December 1908, by Decree No. 1,747, of 17 January 1909, with the object of helping agriculture by supplying mortgage and agricultural credit (for the acquisition of land, for discounting and rediscounting bills and "war-

(1) The *Federação Rural do Brasil* has recently interested itself in the problem of agricultural credit. At a meeting convened by it an important scheme was put forward by one of the members, Senhor João Giffoni. See: O CREDITO AGRICOLA NA SEMANAL DA FEDERAÇÃO RURAL DO BRASIL, in *A Gazeta da Bolsa*, No. 15, Rio de Janeiro, 10 April 1922.

rants"). Besides the initial capital, a large part of which was subscribed by the State, it obtained from the "economic banks", from the Bank of Brazil and from the State Bank more than 200,000 contos to be devoted more particularly to long term mortgage credit operations.

The "economic banks", regulated by the principles laid down in the Law of the Empire No. 1,013, dated 22 August 1860, are bodies which collect popular savings and devote them to the payment of public expenses and therefore to objects of general interest (1). By Law No. 1,544, dated 30 December 1916, their establishment was authorized in the principal towns of the State of S. Paulo, and at the end of 1920 they numbered no fewer than 92 and had deposits to the amount of 54,202,643 milreis. "These bodies", so runs the Presidential Message of His Excellency Dr. Altino Arantes presented on 14 July 1917 to the Legislative Congress, "will certainly form as they were intended to do when they were founded, an important factor in the economic development of the State, and being a veritable school of economy and thrift will supply the means for the intensification of the National production". Out of the funds collected by these bodies loans were, in fact granted up to 31 December 1920, under the Law of 1916, to the large amount of 42,619,424 milreis (2).

Lastly, there are in the more important towns the "popular credit banks", co-operative societies with limited liability which supply to farmers and stockbreeders the means for the cultivation of the land and for the purchase of stock. By Law No. 1520-A, dated 23 December 1916, the Government was authorized to facilitate the formation of these banks.

The "economic banks" and the "popular credit banks" are therefore two organizations which are complementary to one another; the former collect the savings of the people, which are often squandered in unprofitable ways, and the latter restore such savings to circulation in the form of guaranteed and productive investments.

Speaking broadly, the aim in this State, as in European countries, is to solve the problem of agricultural credit on the lines of mutuality. In this connection, the President of the State thus expressed himself in his Presidential Message of 14 July 1916: "Rural banks, formed by groups of agriculturists and bound to a central institution which inspects them and supplies to them the necessary funds for their regular working, are of the greatest efficacy in the diffusion of agricultural credit. Besides granting loans out of the funds at their disposal, the rural banks can collect the small savings realized in the towns of the interior, with the obla-

(1) In the Message addressed to the Legislative Congress by the President of the State of S. Paulo on 14 July 1917 it is stated that the Bank of Mortgage and Agricultural Credit, besides employing its own capital and the sums advanced to it by the State and by the Bank of Brazil for the benefit of agriculture and industry, was also entrusted by Law No. 1,544, of 30 December 1916, with the work of acting as a centre for the distribution of the funds collected by the "economic banks" of the States mentioned above.

(2) See the Message of the President of the State of S. Paulo, His Excellency Dr. Washington Luis Pereira de Souza to the Legislative Congress (Session of 14 July 1921).

tion to put them in circulation again by employing them productively for the benefit of agriculture and the local industries. This form of mutuality, which is so flourishing elsewhere, it must be possible to introduce also into our State and the support and assistance of the public authorities will certainly not be withheld if the initiative is taken by private persons or by the classes interested".

It will be seen from these words how favourable an impression has been created in Brazil by the results which have followed in Europe the application of the various systems of agricultural credit and the profound conviction which has been formed of the advantages which may be derived from these systems, if suitably adapted, even in new countries.

But in regard to credit for agriculture there is one provision which exceeds all others in importance and efficacy — that which was approved by the Parliament towards the end of 1921 and by which was founded an "Institution for the Permanent Defence of the National Production" (1). This provision, the result of the desire of the governing classes to stabilize the price of coffee which, forming as it does the principal item amongst the exports from Brazil, is the product on which largely depends the economic stability and prosperity of the country. The inquiries made and the experience acquired had led to the conclusion that the "defence of coffee" must consist principally in regulating the supply. The causes which rendered the supply irregular were, on the one hand, the inequality of the crops, which vary by two, three and even more millions of sacks from one year to another, and, on the other hand, the want of a banking organization capable of furnishing the means for holding the produce in anticipation of better prices and for providing storage for it. The new Institution is intended to meet these needs. It is a corporate body and is managed by a Board consisting of the Minister of Finance, the Minister of Agriculture and five members nominated by the President of the Republic from amongst persons of recognized competence in agricultural, commercial and banking questions. The Board has at its disposal an organization which enables it rapidly to obtain information concerning all the markets and all the centres of production. At its meetings the Minister of Finance acts as chairman; he has the right to veto any decisions which may appear to him to be contrary to the purposes of the Law. The Institution has its head office in the federal capital, branches in the principal produce markets of Brazil and representatives in the great centres of consumption. Its capital amounts to 300,000,000 milreis of which 250,000,000 milreis is for use in connection with coffee and 50,000,000 milreis in connection with other produce.

The operations for the "permanent defence of the national production" consist in: 1. loans to interested parties, particularly to producers, on conditions, for periods and at moderate rates of interest determined by the Board, such loans being guaranteed by agricultural produce, of kinds

(1) See in this connection *A Gazeta da Bolsa*, No. 165, Rio de Janeiro, 19 December 1921.

which can be conveniently and safely stored, deposited in the general warehouses or in the Federal or State warehouses; 2. the purchase of coffee with a view to its temporary withdrawal from the market, when the Board considers this desirable in order to regulate the supply; 3. propaganda with a view to increasing the consumption of coffee and of other agricultural produce and to the suppression of the frauds practiced in regard to kinds and qualities.

Whenever, for the purpose of obtaining larger financial means, the issue of "warrants" on the produce acquired by the Board is necessary, this can be done up to a maximum limit of 50 per cent. of the current price of the coffee.

The Government is authorized, in order to safeguard the trade in national products, to make agreements with the Bank of Brazil that it shall rediscount bills or other instruments bearing the signature of agriculturists, manufacturers or merchants, as well as "warrants" on sugar, cotton, cocoa, rubber not exceeding 70 per cent. of the price of the produce as shown by the insurance policies.

These operations are carried out by means of the issue of paper money of the Bank of Brazil subject to the approval, in each case, of the fiscal authorities.

To supply a general system of mortgage and agricultural credit for the purpose of providing direct aid to the producers, the Government is further authorized by the same law to assist the establishment of a bank, in the form of a limited liability company, with an initial capital of 20,000,000 milreis and the right to increase it to 50,000,000 milreis, having the faculty of issuing land bonds to an amount equal to ten times the capital at an interest of 6 per cent per annum, guaranteed by the Union.

This bank will grant loans for long terms on rural properties and loans for the provision of working capital on the security of agricultural produce or stock. It will operate over the whole of the national territory, will have its head office at Rio de Janeiro and branches in the various States. The Union may subscribe for initial shares to the value of 10,000,000 milreis and can add to its contribution, at the discretion of the Government, in the successive increases of capital. The bank can participate by subscribing shares in the formation of similar banks in the various States, the Union guaranteeing 4 per cent. interest on the shares issued by these banks provided always that the respective States, in their turn, guarantee at least 2 per cent. of such interest.

The new Mortgage and Agricultural Credit Bank is also authorized to subsidize the banking institutions and agricultural co-operative societies which offer adequate guarantees in the form laid down by the regulations. When the Bank of Issue and the Mortgage and Agricultural Credit Bank start operations, the financial assistance for the defence of national production, above referred to, will be entrusted to this powerful credit organization from which it is expected that a new and vigorous impulse will be given to the expansion of the productive forces of the country.

§ 4. AGRICULTURAL CO-OPERATION.

Nor did the public authorities of the Union fail to realize the great services which well organized vocational unions and co-operative societies can render to individuals and to the country; they have endeavoured, therefore, for more than twenty years to promote the co-operative spirit, which corresponds perfectly to the democratic character of the Brazilian constitution, amongst the population.

The co-operative organization contemplated by the laws of the country rests essentially on the vocational union, considered as a means for the study and the defence of class interests; the co-operative societies are sections of the union and act, as it were, as its economic agents, although they preserve complete independence, with distinct funds and distinct liability. The vocational union as such is the fundamental nucleus of association, the centre from which branch off the various forms of co-operative societies dealing with different branches of economic activity. We have here, therefore, the same type of organization as the agricultural syndicate of France and the vocational union of Belgium.

The co-operative societies and the agricultural syndicates, which are numerous in all parts of the country, have, generally speaking, given satisfactory results. The Ministry of Agriculture assiduously promotes their organization, encouraging it by special facilities and by an active propaganda carried on either by means of its own representatives in the various States (inspectors, teachers in agricultural schools, etc.), or by means of itinerant lecturers who are specialists in the subject.

Thus considerable facilities are granted to agricultural co-operative societies in the State of Rio Grande do Sul (Law No. 133, dated 30 November 1911). The buildings and fixtures acquired by them for their offices and for the establishments in which produce is manipulated or deposited are exempt from the tax on the transfer of property; the land belonging to the co-operative societies on which their buildings stand are exempt for 10 years from the land tax; vineyards, in full production, planted with vines which, in the opinion of experts, are of the best kinds, are also exempt from land tax for 10 years. Agricultural co-operative societies enjoy for 10 years exemption from taxes on their working and those which export wine from the tax on exports. The societies which use wood for fuel pay no tax upon it. The same law also granted for three years from the date of promulgation substantial money premiums proportionate to the amount of the produce to vinegrowers' co-operative societies, and to co-operative societies for the production of fruit, dairy produce and lard. The co-operative rural credit societies and their federations were declared exempt from taxation for 30 years. These measures have resulted in the formation of many co-operative societies (1).

It may also be recalled that some years ago the Government of Minas Geraes drew up a great scheme for the "valorization of coffee" under which the aid of the State for that purpose was chiefly to take the form of organ-

(1) See the report of Dr. Celeste Gobbato cited amongst the sources of this article.

izing the producers in co-operative societies for the preparation of the coffee, for marketing it and for distributing it in foreign countries. The co-operative societies of this kind, as soon as they were formed, were granted the following privileges: 1. money premiums to those which erected and worked machinery for preparing the coffee for sale, 2. money premiums equal to 2 ½ per cent. of the value of the coffee sold in foreign countries, 3. an annual subsidy of 6 contos to each co-operative society for the maintenance of commercial agents in foreign countries, 4. money premiums of 1,500 reis per *arroba* (15 kilogrammes) of roasted coffee sold in foreign countries in establishments specially equipped for the purpose; 5. exemption from all State taxes payable in connection with the formation of the co-operative societies; 6. loans from the Government to the co-operative societies not exceeding 25 per cent. of the value of their unmortgaged property at an interest of 8 per cent. per annum.

This plan, devised about 1910, at a moment when the country was passing through an economic crisis, gave excellent results; it continued to be carried out in successive years with the aid of the Government, from which the co-operative societies obtained loans amounting to a very large sum.

But to indicate still more clearly the interest of the public authorities in the movement for the organization of the agriculturists, we may here outline the "instructions for propaganda and for the organization of vocational unions and co-operative societies" approved by the Order (*portaria*) of 27 August 1920, which is the most recent and most striking document in which the principles adopted by the Brazilian authorities on the important question with which we are dealing are laid down. This Order relates to Decrees No. 979, dated 6 January 1903, and No. 1,637 dated 5 January 1907.

By the first of these liberty is given to those who are carrying on agriculture or the industries connected with it to combine for the defence of their own interests in unions. The formation of such unions is subject to no restrictions; it is sufficient, to obtain recognition and to enjoy the benefits of the law, that two copies of the rules, of the documents attesting the formation of the union and of the list of members should be lodged, on the responsibility of the officers of the union, with the department concerned and that these documents should be found to be in order. The union thus formed may also act as an intermediary in procuring credit for its members; it may acquire on their behalf the requisites for carrying on their occupation, may sell the produce of their undertakings, may form in close association with themselves, as we have already noted, rural banks, co-operative productive societies, co-operative distributive societies, and insurance and thrift societies, without incurring any direct liability for their working.

What has been said applies particularly to the agricultural syndicates; those which have arisen amongst persons who carry on the same occupation or kindred occupations, in other fields than agriculture, including the liberal professions, are governed by Chapter I of the Decree, to which we have

already referred, No. 1,637, dated 5 January 1907, which in Chapter II deals with co-operative societies.

The juridical form of co-operative societies does not present any special features. The liability of the members may be limited, or unlimited, or there may be members with limited and members with unlimited liability. The share capital is variable and the number of members is not limited. The name of the holder of each share is registered and the nominal value of the share must not exceed 100 milreis.

The combination of the co-operative societies in federations for common purposes is provided for.

The Order of 27 August 1920 was issued for the express purpose of regulating propaganda and the organization of vocational unions and of co-operative societies regarded also as bodies which tend to promote agreement between capital and labour.

The scheme of co-operative propaganda is particularly interesting. It must be carried on, according to the Order :

(a) through the medium of the press, by articles both theoretical and practical in character, written in clear and simple language, so as to render familiar to industrial and agricultural workers, to agriculturists, to manufacturers, to merchants and to consumers generally, the principles and methods of "co-operative unionism".

(b) by means of lectures given at meetings at which the persons present will have the opportunity of asking explanations calculated to eliminate all doubts which may prevent a complete understanding of the vocational, economic, moral and social advantages resulting, for the classes above mentioned, from the rational application of "co-operative unionism";

(c) by means of courses to be held at the offices of workmen's societies and agricultural, industrial and commercial societies, at schools, in workshops, in factories, at agricultural and stockbreeding experiment stations; in these courses the fundamental principles of the legislation in force regarding the question and the rules relating to the formation, management, accounts and working of the various kinds of organization will be explained;

(d) by means of publications on the theory and practice of unionism and co-operation, free from any political or sectarian bias.

To encourage propaganda and to promote the formation of unions and co-operative societies, the department which deals with such societies is authorized to grant the title of "official propagandist" to any person who gives proof of having a precise knowledge of the matter and of carrying on useful work in the promotion of the movement.

Not less important are the rules for the establishment of societies. The "official propagandists" are expected :

(1) To point out to intending members, in the preliminary meetings, not only the facilities granted by the public authorities, but the difficulties of various kinds which are met with in practice and the best way of overcoming them;

(2) to guide them and assist them in drawing up the rules and

documents of various kinds, in opening the share registers and in all the formalities connected with the establishment of the union or society ;

(3) to explain to the intending members the method of forming the capital by means of different kinds of shares, or, in the case of distributive co-operative societies, the methods of forming the initial stock of goods when the societies begin to work without capital, the choice of method depending on the moral, intellectual and financial conditions of the intending members ;

(4) to furnish information on the acquisition, conservation, packing and transport of goods ;

(5) to promote direct relations between producers and consumers, endeavouring to bring them as closely together as possible ;

(6) to point out the disadvantages of allowing persons not belonging to the same class as the members to take part in the management of the societies ;

(7) to initiate the carrying out of the scheme of organization with the vocational union, which will be followed by co-operative or mutual institutions which " cannot and must not be influenced by persons or groups of persons not belonging to the same class as the members " ;

(8) to denounce to the department concerned, in due form, the rules of vocational, economic or financial associations formed in an illegal manner, especially when they derive from the regime established by the laws in force benefits to which they are not legally entitled.

In the general plan of organization contemplated by the Order we are outlining the co-operative distributive society is considered as the first economic agent of the vocational union and therefore as the first form of society which should be organized ; its objects are to purchase with the advantages offered by wholesale buying for cash, the goods and articles which the members do not produce, but require for food, clothing and labour, and to collect and grade the articles produced in small quantities by the members and to pay for them either in cash or by means of bills (1).

The reduction of the cost of living being facilitated by these distributive bodies, usually known as " co-operative societies for purchase and and sale ", the Order lays down that the vocational union is next to form amongst its members a co-operative agricultural credit bank, its second economic agent. The object of the credit bank is to receive on deposit the small savings of the members, paying interest thereon, and to grant them loans at a low rate of interest and for suitable periods, on the security of personal guarantees or of the pledge of ungathered fruit, when the difficulties in which the members find themselves cannot be readily overcome by the immediate purchase for cash, on the part of the co-operative distributive society, of their produce.

(1) By Law No 4,251, of 8 January 1921, authorization was given to make loans up to a maximum of 1,000,000 milreis for the formation of co-operative distributive societies by vocational unions.

When the conditions of life of the members have been improved by the gradual elimination of useless intermediaries, so that goods are purchased direct from the producers, and ready pecuniary aid on moderate terms has been assured to them by the suppression of usurers, the vocational union, making use of the funds accumulated by the distributive and credit societies, and collecting other funds from its own members, is to form a co-operative productive society, its third economic agent, for the purpose of acquiring land for cultivation or for the carrying on of rural industries on co-operative lines, for the purchase of machines, for the opening of workshops and factories for the employment of the members, and for the utilization of the raw material supplied by them.

When these three essential forms of "co-operative unionism" have been put into practice, the vocational union, which at the same time will have instituted courses, schools, libraries, medical and legal services, etc., for its members and their families, will create, as far as the means at its disposal will permit, kindergarten, maternity hospitals, almshouses, hospitals, etc.

After the formation of the unions with the sections attached to them, the next step is to combine them in municipal, State and Federal unions (*uniões, centralizações, federações*) which, in their turn, will provide, either separately or jointly, for the formation of co-operative building societies for the construction or the acquisition of houses for the families of the members and of co-operative societies for rendering various services connected with the exercise of the members' vocations, or for works of various kinds.

The movement for the organization of the working classes is thus confined by the Order within clearly defined limits. The Order sketches with firm lines a great scheme for the promotion of vocational unions and co-operative societies, a scheme based on rational principles and inspired by modern ideas, which cannot fail to be successful if it is carried out with judgement and skill by persons possessing initiative and worthy of confidence. It is aimed in this manner gradually to organize the producing and working classes in institutions for the defence of their vocational and economic interests, ensuring to them through the work of individuals and collective effort the greatest possible wellbeing and thus consolidating the active forces of the Nation.

§ 5. SOCIAL LEGISLATION.

A field in which in recent years Brazil has made remarkable progress and to which it is devoting more and more attention is that of social legislation. The labour laws in Brazil are so up-to-date as to bear comparison with those of the most advanced European countries. Sufficient evidence of this is given by the recent provisions for the insurance of workmen against accidents during their work and by the establishment of the National Labour Department, which mark an important date in the history of Brazilian social institutions.

Workmen's insurance is regulated by the Federal Decree No. 3,724, dated 15 January 1919, and by Regulations No. 13,498, dated 12 March 1919.

The following accidents are considered as occurring during work : (a) those which result from an unexpected, violent and involuntary cause in carrying out work, and produce lesions or functional derangements which are the sole cause of death or the loss, total or partial, permanent, or temporary, of the capacity for work ; (b) the illnesses contracted exclusively in carrying out work, when the work is of such a nature as of itself to produce them, and when it results in the death of the worker or the loss, total or partial, permanent or temporary, of his capacity for work.

When an accident occurs under the conditions described, the employer is obliged to pay compensation to the workman or to his family, excepting only in cases of *force majeure* or of malice on the part of the victim himself or of third parties.

The principle of vocational risks is thus admitted. Previously the worker had a right to compensation only when it could be proved that the accident was due to the fault of the employer.

The obligation mentioned applies also to the Union, the States and the Municipalities in respect of their own employers.

In the meaning of the Decree, an employer is a person, natural or legal, on whose account the workman labours and a workman is an individual, without distinction of sex or age, who gives his services to others, for remuneration or gratuitously, permanently or temporarily, outside his own home.

Many industries and services are included within the scope of the law ; we mention those which are of most interest for agriculture, in the widest sense of the word :

(1) Those industries and agricultural operations in which mechanical motors are used, the motive force being water, steam, wind, gas, petroleum, compressed air, etc. In this group figure, amongst other branches : hydraulic, mechanical, hydroelectric and electric workshops ; chemical industries ; mechanical industries for the construction, repair and maintenance of machines, implements and accessories ; textile industries ; the manufacture of dairy products ; the manufacture of products of vegetable or animal origin ; factories for the production, manipulation or preservation of sugar, coffee, cereals, potato-flour, rubber, maté, alcohol, etc. ; mills and similar installations ; the manufacture of oil products and fats ; bakeries, flour-mills, starch-factories, etc. ; wood-working establishments ; agricultural operations (harrowing, ploughing, sowing, cultivation, harvesting, etc.), including the preparatory and supplementary operations (clearing, levelling, irrigation, draining, improvement, etc.).

(2) the execution, maintenance, repair or demolition of construction works of any kind (railways, roads for wheeled traffic and by-roads, private houses and workmen's dwellings in town or country, sanitary works, canals, aqueducts, bridges, and all drainage and irrigation works, regulation of watercourses, embankment works, works for defence against inundation or for the collection and supply of water) ;

- (3) transport by land, sea or river ;
- (4) loading and unloading of goods and of animals.

The compensation payable is fixed on the basis of the wages, up to a maximum of 2,400 milreis per annum, and is proportionate to the damage resulting from the accident or the illness.

In case of death, the compensation is a sum equal to three years' wages, half being payable to the wife and half to the legitimate heirs. The sum is reduced to two years' wages if the workman leaves only a wife or only legitimate heirs.

The compensation payable to a workman who has been rendered wholly and permanently incapable of working is also equal to three years' wages.

In cases of total, but temporary, disablement the compensation is half the daily wages, for a period of one year, after which the disablement is considered as being permanent.

In the case of permanent, but partial, disablement, the compensation varies from 5 to 60 per cent. of the sum which would be payable for total and permanent disablement, taking account, in calculating the percentage, of the nature and extent of the disablement of the workman and keeping in mind the following factors : (a) the capacity for work which remains after the accident or illness ; (b) the age ; (c) the intelligence ; (d) the degree of education ; (e) the initiative and force of character ; (f) the capacity for being adapted to another occupation ; (g) the possibility of readapting the workman to the same occupation which he carried on at the time of the accident or illness.

For partial and temporary disablement, the compensation is equal to half the difference between the ordinary wages and the wages reduced on account of the diminished capacity.

The yearly wages are calculated by multiplying the daily wages by 300.

In case of the death of the workman as a result of the accident or illness occurring after the indemnity has already been fixed on the basis of disablement, considered to be temporary or permanent, the decision must be revised, unless death occurs through the fault of the workman himself.

The insurance is effected solely on the account of the employer, who cannot therefore retain for that purpose any part of the wages of his workmen. He has the option of insuring himself either with a company duly authorized to carry on workmen's compensation insurance or with a vocational union organized in conformity with the Decree of 5 January 1907, No. 1,637.

Besides these rules, the Decree contains various provisions from which the extent of the aid granted to workers may be judged. One of the most important is that which relates to medical attendance ; from the moment in which the accident or the illness occurs, the employer is obliged to provide medical attendance and medicines and, if necessary, to maintain the workman in a hospital ; if there is neither doctor nor pharmacy on the spot, the employer must have the workman moved to the nearest place where he can obtain medical treatment, and when the state of the workman is such that he cannot be moved he must nevertheless see that the necessary attendance is provided.

The Law further provides for the nomination of a consultative committee to study the various questions connected with this form of insurance.

Another measure which is worthy of note is that of 1921 regarding the establishment of the National Labour Department (1) to which have been assigned many complex and interesting functions. Its objects, in fact are

(1) to provide for the drawing up and carrying out of the measures relating to labour in general and particularly those concerning employment bureaux, the hours of labour, wages, sanitary conditions of the workers, the safeguarding of the rights of workers and their conditions of life, workman's insurance, technical instruction, agricultural labour, home work, the protection of the labour of women, children and old persons, etc.

(2) to supervise the institutions or the agricultural training of minors, in accordance with the Decree of 25 July 1919, No. 13,702 (2) ;

(3) to provide free legal assistance to the town and country workers in regard to the guarantees to which they are entitled as labourers ;

(4) to serve as intermediary between the supply and demand of labour, endeavouring to prevent the rural exodus and establishing public free employment bureaux ;

(5) to promote the organization of, and to conduct propaganda in favour of, vocational unions and co-operative societies, in conformity with the decrees relating to them which we have already noted, and to ensure the carrying out of the Law of 8 January 1921, No. 4,251, of which we have also spoken ;

(6) in general, to watch over the application of the sanitary and protective measures relating to workmen in factories and workshops, in commercial establishments or in agricultural undertakings.

The National Labour Department is also to provide for the formation and working of a Social Museum, of a Higher Council of Labour, of a Central Council of Arbitration and a Central Council of Conciliation.

We give the principal provisions relating to each of the four institutions mentioned.

The Social Museum. — This institution will deal with the prevention of accidents during labour, with industrial sanitation, and with the education and general and vocational training of the working class. It will carry out inquiries and studies regarding :

(a) the economic, social and moral conditions of the workers ;

(b) the best methods of improving the conditions of those who take part in the production and distribution of wealth ;

(c) the vocational unions and co-operative societies for production, credit and distribution ;

(d) the preparation of young persons for work and their vocational training, due account being taken of their physical condition and of their age ;

(1) *Diario Official*, Rio de Janeiro, 23 July 1921.

(2) These institutions provide accommodation for hundreds of minors and employ them in agricultural work, thus preparing them for their future vocation. They are subsidized by the State, they are increasing in number and their beneficial effects are steadily becoming more apparent.

(e) suitable means for safeguarding the family capital of the worker and for facilitating the construction of sanitary dwellings at low cost.

It will also be the task of the Social Museum :

(1) to stimulate and encourage all proposals calculated to increase the welfare of the poorer classes ;

(2) to provide means for giving new vocational training to workmen whose physical capacity has been diminished by accident during work or by illness resulting from it ;

(3) to organize exhibitions of schemes and studies relating to the conditions of health and sanitation of the places in which work is carried on and to the means of protection, individual or collective, against accidents and illness ;

(4) to organize public lectures on all questions which relate to labour and to convene congresses on social questions.

The Social Museum will contain a Library supplied with all the publications relating to labour problems ; a hall for the exhibition of all kinds of machines, whether moved by hand or by motors, which may be furnished with apparatus for protecting the health or ensuring the safety of the worker ; a hall for the exhibition of plans, models, photographs of projects, and statistical data regarding the various questions within the competence of the Department ; an experimental laboratory, with a section for the trial of new machines and implements, and a hall for exhibiting plastic models of the various injuries caused by illness resulting from different occupations, with indications of the methods of treating the illnesses to which the rural population is liable.

The Higher Council of Labour. — This Council is composed of 20 members, of whom five are elected by workmen's associations and five by employers' associations, while five are nominated by a Decree of the President of the Republic from amongst experts in labour questions and five from amongst the directors-general of the administration.

The functions of the Council are the following :

(a) to direct the Social Museum ;

(b) to supply to the Government the information and the statistics on which to base the social reforms to be introduced ;

(c) to study suitable means for solving the problem of unemployment ;

(d) to fix, by agreement between the employers' and workmen's associations, tariffs of wages with the specification of the hours of labour and of rest ;

(e) to give a wider and more scientific development to the insurance companies and to the vocational unions which deal with accidents occurring during work or illnesses resulting from it, in order to extend the principle of workmen's insurance ;

(f) to spread a knowledge of methods of protection and sanitation and of the preventive measures which employers ought to apply to avoid accidents and illness.

The Council of Arbitration and of Conciliation. — A Council of Arbitration and a Council of Conciliation, each composed of seven members, of whom three will be elected by workmen's associations and three by employers' associations, the Director-General of the National Labour Department acting as Chairman, will be formed in the Federal District. The members of these Councils will not be nominated for any period, but will be specially elected each time a dispute occurs between capital and labour.

Similar Councils will be formed in the capitals of the various States of the Confederation and in the principal municipalities, but with limited functions.

Only the vocational unions formed according to the provisions of the law and duly registered at the National Labour Department will have the right to take part in the election of the members of the Councils of Arbitration and of Conciliation.

The employers' and workmen's organizations which find it desirable to call in the aid of the Government in order to put an end to a dispute between them can make written application to it, annexing a statement of the facts on which the conflict turns. If the intervention of the Government is, on the other hand, requested by only one of the parties to the dispute, the administrative authorities can communicate to the other a copy of the request for conciliation, giving it a short period in which to present its observations. After this, the administrative authorities will submit the dispute to the Council of Conciliation. If this Council does not succeed in bringing the parties to an agreement, it will propose to them to have recourse to the Council of Arbitration, but in order that this may take place, it is necessary that the parties in dispute should pledge themselves scrupulously to observe the final decision of the Council whatever it may be, under pain of a fine to be fixed by common accord. The amount of the fines paid by the party failing to carry out the agreement serves to subsidize the schools established by the workers' unions.

Finally, minute provisions are laid down regarding the health and safety of the workers, and a special body of inspectors sees that they are strictly observed.

From these rules, from those relating to insurance against accidents which we have mentioned above, and from the many others relating to labour problems, which for the sake of brevity we pass over, it is clear that Brazil is moving rapidly in the direction of the most ample and most liberal reforms in the social field.

§ 6. AGRICULTURAL INSTRUCTION AND TECHNICAL AIDS TO AGRICULTURE.

The "nuclei of colonization" and the *fazendas* form the surroundings in which, though in different ways and with different objects, agriculture is carried on, and we have seen how they are formed. We have also seen

how the working classes tend to form themselves into unions and co-operative societies to provide by combined action for the needs of individuals, and how many social measures taken with sound judgment guarantee to the workers safe and undisturbed labour conditions. To complete our sketch of the economic organization of Brazilian agriculture it remains to outline the system adopted for providing agricultural instruction and technical aids to agriculture.

The Agricultural Education Service, the full importance of which for the scientific practice of agriculture was fully recognized, was established in 1910, according to a large programme including all grades of instruction, from the higher courses, which are of particular value for large proprietors, to the elementary courses, which are of special value for the popular classes.

Higher instruction is given in the Higher School of Agriculture and of Veterinary Medicine (Rio de Janeiro) which, as its name implies, comprises two sections, one for the training of agricultural experts and the other for the training of veterinary surgeons. The first section aims at promoting the technical progress of agriculture by the formation and the work of experts who, by reason of the special knowledge which they have acquired, can aspire to high posts in the Ministry of Agriculture or assume the direction of services connected with the working of large agricultural undertakings or of rural industries. The object of the second section is to form a body of professional veterinary surgeons who shall devote themselves to the practice or the teaching of veterinary medicine or fill public offices connected therewith.

This School was reorganized by the Decree of 29 March 1920, No. 14,120 which added to its programme a course in industrial chemistry, so that at present it provides for three kinds of higher study: agriculture, veterinary medicine and industrial chemistry.

Intermediate instruction is given in theoretical and practical schools of vocational training applied to agriculture, stock-breeding and rural industries. The object of these schools is to train skilled agriculturists in all branches. They are established in different regions and their programme therefore varies according to the kinds of cultivation and of rural industries prevalent in each particular region. Independently of the instruction given, they interest themselves in all the agricultural problems of the region, helping the progress of agriculture by scientific inquiries and an active propaganda in favour of modern agricultural methods.

There is also vocational training, properly so-called, which is provided by a series of institutions and services which we shall pass in review.

1. *Practical Schools of Agriculture.* — These are intended for persons who, having already an elementary knowledge of agriculture, intend to devote themselves to that occupation, after acquiring instruction in its various branches and undergoing an adequate apprenticeship. The object is to form skilled cultivators and capable managers of agricultural undertakings and to instruct the sons of agriculturists in improved methods of cultivation and of stockbreeding. The teaching is entirely practical; the theoretical part is limited to those ideas which are indispensable to

enable the pupils to apply the teachings of science to agriculture and the derived industries. The pupils must, therefore, under the direction of the teachers, carry out most of the work of the model farm and of the establishments annexed to the school.

2. *Schools of Agricultural Apprenticeship.* — The object of these is to train labourers skilled in all the work required on an agricultural undertaking conducted on modern lines. The teaching is essentially practical and the schools are chiefly attended by the sons of small cultivators and of agricultural labourers, who have thus the opportunity of acquiring instruction in the manual and mechanical arts connected with agriculture, of learning modern methods of cultivation, the use of various agricultural implements, the operations connected with the breeding and care of animals and with rural industries (manufacture of dairy products, milling, distillation, drying of fruit, etc.). Practice in the various operations is supplemented by elementary notions given in the course of the work to facilitate its execution. The pupils also attend lectures on agriculture, stockbreeding, market gardening, beekeeping, sericulture, etc., and visit farms, factories, museums, shows, fairs and markets.

3. *Permanent Dairy Schools.* — In these the instruction comprises all the operations connected with milk, butter and cheese, as well as the breeding and care of stock, and the packing, transport and marketing of dairy products. The organization and methods of these schools are modelled on those of the schools of agricultural apprenticeship.

4. *Demonstration Plots.* — The principal object of these is to spread in the country the practical ideas which serve to increase the yield of the various crops, at the same time reducing to a minimum the cost of production. There are several kinds of demonstration plots. The most important are those which are managed as independent institutions, under the direct control of the Ministry of Agriculture. Next in importance are those in which ordinary cultivation is carried on for purposes of demonstration, in connection with agricultural undertakings belonging to the State Governments, to agricultural associations or to private individuals. There are also on public or private estates demonstration plots on which a single crop is cultivated with a view to perfecting the method of cultivation. Lastly, there are small demonstration plots in connection with elementary rural schools.

To the three last kinds of demonstration plots the Federal Government grants annual subsidies.

5. *Itinerant Courses.* — These provide for the technical instruction of those farmers who for various reasons are unable to attend the regular courses of the agricultural educational institutions. Besides the various branches of agriculture properly so-called, they include the breeding, feeding, health and care of live stock, arboriculture and market gardening, poultry-keeping, beekeeping, sericulture, the treatment of the common diseases to which cultivated plants are subject, and rural industries.

At each centre of itinerant instruction there is a demonstration plot of one or other of the kinds mentioned, under the charge of the directors

of itinerant instruction. The director is aided by one or two assistants and organizes practical courses at the headquarters of the service and in the principal centres of the district. Besides the federal agricultural educational institutions above mentioned there exists a certain number of schools of various kinds, formed and maintained by the Governments of the States, by the Municipalities, by associations and by private individuals, some of which have attained considerable importance, while others, less important, are subsidized by the Union.

Passing to the other technical services relating to agriculture and stock-breeding, we may mention the general agricultural experiment stations, created by the Decree of 20 October 1910, No. 8,319, at which all the factors in the agricultural production of the various regions are studied with a view to furnishing to cultivators and stockbreeders precise data for the perfecting of the systems of cultivation and of stockbreeding, and the Meteorological and Astronomical Service, created in 1909 and reorganized by the Decree of 25 May 1921, No. 14,827, which substituted for the former Department of Meteorology and Astronomy two independent institutions — the National Observatory and the Department of Meteorology, this latter including a special service of agricultural meteorology (1). Nor must we omit to mention the National Museum, formed in 1911 for the study of the natural history of Brazil and for carrying out researches in entomology, in agricultural phytopathology, vegetable and general chemistry, the Botanical Garden, the Forestry Garden, the Fishery Service, the Stockbreeding Stations, the model farms for the breeding of live stock, the Veterinary Service, etc.

Recently the technical organization above described, the origin of which dates back to 1909, that is when the Federal Ministry of Agriculture began its work, has been extended by the creation of new institutions and services, mention of which is made in the Message presented by the President of the Republic, Senhor Epitacio Pessoa, to the National Congress, on the occasion of the inaugural sitting of the 11th Legislature. This Message was, in fact, a full review of what is being done in Brazil in the various fields of economic activity and a truly dynamic programme of further initiatives and undertakings (2).

The Message speaks of the creation, by Decree No. 14,356, dated 15 September 1920, of a Biological Institution for the Defence of Agriculture (*Instituto Biológico de Defesa Agrícola*) for the purpose of conducting scientific and experimental researches concerning the diseases and other enemies of cultivated or wild plants and the best means of combating

(1) On the origin and development of agricultural meteorology in Brazil, see the communication made in 1921 to the Permanent Committee of the International Institute of Agriculture by Dr. Deodécio De Campos, Delegate of Brazil.

(2) In the *International Review of the Science and Practice of Agriculture*, published by the International Institute of Agriculture, notes on the technical progress of Brazilian agriculture are regularly given. See in particular the issues of April 1921 (No. 442); June 1921 (No. 592); July 1921 (No. 700); November 1921 (No. 1078); December 1921 (Nos. 1,195 and 1,220); February 1922 (No. 145); May-June 1922 (No. 644); September 1922 (No. 901). To these we refer the reader for further details.

them. The Institution comprises the following services: plant pathology, the selection of immune or disease-resisting plants, agricultural entomology, inspection of plant diseases, a laboratory for microbiology of the soil, a demonstration and experiment station (1).

In the Message mention is also made of the Service of Inspection and of Agricultural Propaganda, of the Seed Service and the Cotton Service. The first of these deals chiefly with the organization for the drawing up of the agricultural map, the indispensable guide for the exploration and valuation of lands. The Service has already provided for the division of the various States into physiographical regions, according to the conditions of the soil, climate and altitude, extent and distribution of particular crops. The Seed Service was created by the Decree of 24 August 1920, No. 14,825, for the multiplication and selection of seeds, for tests of adaptation and acclimatization, for researches into plant-breeding, for the diffusion of ideas regarding the use of good seed. Fields for the production and testing of seeds have already been laid out at the Deodoro, Rezende and S. Simão Stations. The Cotton Service is particularly important. It was created by the Decree of 27 March 1919, No. 14,117, and after a period of preparation was able to begin its work, the utility of which is steadily becoming more apparent. At this moment, when a deficiency of raw material is felt in the manufacturing centres throughout the world, Brazil cannot fail to take a keen interest in a product so greatly sought after (2). Special experiment and testing stations have been established for the

(1) The text of this Decree was published in the series of "Textes législatifs" (Year 1920, No. 8) published by the Agricultural Legislation Office of the International Institute of Agriculture. The object of this series is to give early information of the most important legislative measures in regard to agriculture taken in the various countries. These measures, together with others not included in the "Textes législatifs", are afterwards republished in the "Annuaire International de Législation Agricole".

(2) In regard to the question of the possible increase of cotton cultivation in Brazil an interesting report was presented to the Minister of Foreign Affairs of that country by Dr. Deodécio De Campos, Brazilian Commercial Attaché at Rome, and was published in the *Boletim do Ministério das Relações Exteriores*, No. 16, Rio de Janeiro, October 1920. See also: COELHO DE SOUZA (William W.): Possibilidades da cultura algodoeira no Brasil. Ministério da Agricultura, Indústria e Comércio. Serviço do Algodão. Rio de Janeiro, Imprensa Nacional, 1922. — PEARSE (Arno S.): Brazilian Cotton. Manchester, Taylor Garnett Irvans, 1922. (This is the report of a journey made in 1921, by the International Cotton Mission, of which Mr. Pearse was the head, through the States of S. Paulo, Minas Geraes, Bahia, Alagoas, Sergipe, Pernambuco, Parahyba and Rio Grande do Norte, and it indicates the great possibilities of development and improvement of cotton cultivation in Brazil). — On the importance and position of Brazil as a cotton-producing country, interesting notes will be found in the following publications of the International Institute of Agriculture: LES PAYS COTONNIERS. LEUR PRODUCTION ET LEUR MOUVEMENT COMMERCIAL (Issued by the Bureau of General Statistics) Rome 1922. — DE CAMPOS (Deodécio): Rapport sur la statistique du coton présentée à la VI^e Assemblée Générale de l'Institut International d'Agriculture Rome, 1922. — RICCI (Prof. Umberto), Chief of the Bureau of General Statistics: La Conférence cotonnière mondiale de Liverpool et de Manchester (Report presented to the Sixth General Assembly of the International Institute of Agriculture, May 1922).

improvement, the selection and the distribution of the best varieties and for the struggle against the diseases of cotton. The Service has made a series of studies on the sterilization of the seeds and on the injurious effect of too high temperatures in rooms not sufficiently ventilated. Two research stations are being organized in the State of Maranhão, three in Piahy, two in Rio Grande do Norte, five in Parahyba, four in Pernambuco, one in Alagoas, four in Sergipe, two in Bahia and one in Minas Geraes.

Mention is also made of the activity displayed in the matter of cereal growing. The most recent researches have in fact shown that Brazil is capable of producing all the grain necessary for the local consumption. In the States of Rio Grande do Sul, Paraná, and Santa Caterina there are extensive tracts of land which by reason of the soil conditions and the climate lend themselves admirably to the cultivation of cereals.

Besides the measures previously taken for the increase of cereal production, the Government has promoted the formation of a Cereal-growing Experiment Station in the municipality of Alfredo Chaves (Rio Grande do Sul). The land placed at the disposal of this institution is 65 hectares in extent and it has been divided into plots for the genealogical selection and multiplication of selected types.

Lastly considerable aid has been given to the stockbreeding industry. The most recent measure for this purpose is found in Decree No. 14,711, of 5 March 1921 (1), which determines and regulates the functions of the Stockbreeding Service, established by Decree No. 11,460 of 27 January 1915, and of the offices dependent upon it and which deals, in special chapters, with the prophylactic treatment of stock diseases and of the methods of combating them, with the inspection of meat, with the import and export of animals and animal products. It is a complex code of rules which gives a clear idea of the importance attached to this fundamental branch of agricultural economy.

A like impulse to technical agricultural progress is given by the State Governments, as may be seen by glancing through the Presidential Messages of the various States. From these it is apparent that there is the keenest possible desire to place the national agriculture on a sound technical basis and to ensure the maximum production (2) and the maximum prosperity.

(1) See the collection of "Textes législatifs" issued by the International Institute of Agriculture, Year 1921, No. 25.

(2) According to information furnished by the Brazilian Ministry of Agriculture, the production of Brazil, during the agricultural year 1920-21, amounted to 9,445,711 metric tons and 15,939,444 hectolitres of products of all kinds, valued at 4,284,684,189 milreis. The production of coffee alone amounted to 854,723,966 kilogrammes, valued at 1,025,992,759 milreis, without including in these figures the crops produced in the States of Amazonas, Pará, Piahy, Rio Grande do Norte, Sergipe and Rio Grande do Sul. The production of maize was calculated at 4,736,095,866 kilogrammes, valued at 949,219,173 milreis; that of cotton at 242,995,843 kilogrammes, valued at 485,991,686 milreis; that of sugar at 695,516,400 kilogrammes valued at 417,309,840 milreis; that of beans at 664,444,364 kilogrammes valued at 232,555,527 milreis; that of maté at 360,000,000, kilogrammes, valued at 156,000,000 milreis; that of tobacco at 86,632,705 kilogrammes, valued

To the technical aid to agriculture, above outlined, the National Society of Agriculture has given a valuable contribution. This is one of the oldest and most active agricultural institutions in Brazil; it numbers about 8,000 members and its President is Miguel Calmon du Pin e Almeida, a distinguished personality in the field of Brazilian rural economy. Being in touch with all the agricultural associations of the country and with the cultivators and stockbreeders of the various States, the Society is the principal organization of the rural classes of Brazil. In the fulfilment of its mission, during 25 years of existence, it has always enjoyed the complete confidence of the public authorities, of kindred institutions and of its numerous members. Amongst the many initiatives which it has taken (1) we may mention the organization of important agricultural and stockbreeding congresses, of shows, of conferences for the promotion of co-operation, and of various technical and economic services for the benefit of the members. It is on the initiative of the National Society of Agriculture that the Third International Cotton Conference has been held in October at Rio de Janeiro. This Conference is of the utmost importance for Brazil which is on the way to becoming one of the most important cotton-producing countries of the world (2).

at 129,950,042 milreis; that of tapioca at 572,307,920 kilogrammes, valued at 11,461,584 milreis; that of rubber at 60,858,602 kilogrammes, valued at 97,373,763 milreis; that of potatoes at 190,852,580 kilogrammes, valued at 76,341,032 milreis; that of cocoa at 61,052,615 kilogrammes, valued at 61,052,615 milreis; that of lucerne at 161,634,500 kilogrammes, valued at 59,804,765 milreis. Dr. Deoclecio de Campos, in his capacity as Vice-President of the General Statistics Sub-Committee of the International Institute of Agriculture, drew the attention of the Federal Government to the desirability of organizing a Federal Service of Agricultural Statistics which should carry out its work in conformity with the principles and methods of presentation recommended by the Institute. As a result of this initiative, the Federal Government has taken into consideration the wishes of the Institute and has started an organization which will doubtless give notable results. See in this connection: DE CAMPOS (Dr. Deoclecio): Instituto Internacional de Agricultura: A falta de dados estatísticos do Brasil: A necessidade de organizar um serviço especial de estatística agrícola, in the *Boletim do Ministério das Relações Exteriores*, No. 22, Rio de Janeiro April 1921.

(1) See in this connection: A IMPONENTE COMEMORAÇÃO DO 25º ANIVERSÁRIO DA SOCIEDADE NACIONAL DE AGRICULTURA, in *A Lavoura*, the organ of the Society, Rio Janeiro, January 1922, No. 1.

(2) The programme of this International Conference includes the following ten groups of questions: (a) Cotton in Brazil. Inquiry into the Cultivation of Cotton in the various States of Brazil and in Other Countries. — (b) The Perfecting of the Cultivation of Cotton in Brazil. — (c) Diseases of Cotton: Service of Defence. — (d) Cotton in the North-East. — (e) Treatment and Transformation of Cotton and its By-products. — (f) Development of Cotton Cultivation. The Federal Cotton Service. — (g) Classification of Cotton and Formation of Commercial Types of Fibre and of By-products. Trade in Cotton. — (h) Spinning and Weaving Industries. Internal Consumption of Cotton. Export of Cotton Stuffs. — (i) Economic Protection of Cotton. — (j) Export of Cotton and its By-products. Tariffs and Freights. See in this connection: LA CONFÉRENCE INTERNATIONALE COTONNIÈRE DE RIO DE JANEIRO (OCTOBRE 1922) Communication made to the Permanent Committee of the International Institute of Agriculture by Dr. Deoclecio De Campos, Delegate of Brazil.

To commemorate with due solemnity the first centenary of its independence (1822-1922) Brazil has organized an Exhibition (September 1922 to March 1923) to which all the nations are invited. This is the first international exhibition which has been held since the beginning of the European War. In view of the economic development attained, of the progress made towards the solution of those problems which are of vital interest to the country and of the results achieved by the tenacious efforts to employ and co-ordinate all the healthy energies of the country for the supreme purpose of rendering the nation greater and more prosperous, Brazil may well be proud of its progress and look confidently to the future; it will figure worthily, in the exhibition recently inaugurated, amongst the greatest countries of the world.

G. C.

FRANCE.

ALLOTMENTS DURING THE WAR.

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 CINQUIÈME CONGRÈS DES JARDINS OUVRIERS, TENU À PARIS LES 5, 6 ET 7 NOVEMBRE 1920. *COMPTE RENDU*. Paris, 1922.
Le Coin de terre et le Foyer, organ of the 'Ligue Française du coin de Terre et du Foyer', Paris, since 1898.

One of the characteristic features of France before 1789 was the tendency for each house to have a piece of land attached to it, no matter what the importance of the dwelling. This tendency was so strong that it overrode even the revolutionary laws which prescribed the division of the communal property among the inhabitants by head and in full ownership. (This was optional by the Decree of 28 August 1793, but was made compulsory by that of 10 June 1793). In some parts the people went so far as to return to the commune the lands thus assigned to them. Napoleon I,

although little inclined to tolerate opposition to the Civil Code, recognized the importance of this resistance, and respected the *portions ménagères* granted to their members by many of the communes of the North. One of these localities, Fort-Mardyck, which was only raised to the status of a commune in 1868, deserves special mention. Fort-Mardyck is a township of 1,700 inhabitants, situated five kilometres from Dunkirk. Its inhabitants are all descendants of four families of Picardy, planted on this coast in 1670 by Louis XIV, to whom they owe the form of social economy under which they still live. Every Fort-Mardyck sailor, the widows, the unmarried girls and those unable to go to sea have the right to 22 ares 2 centiares of communal land, of which they possess the usufruct and which while in their hands cannot be transferred or seized. Any holder leaving Fort-Mardyck or any sailor refusing to go to sea loses the right to the concession at the end of a year and a day.

Further in the Vendée and in Vienne, in the West of France, the ancient usage of the "furrows of the poor" is to be met with. In the spring when the fields are being manured and tilled, the day labourers and the farm-servants, or even the poor of the neighbourhood, make application to the landowner or farmer to give them a free grant of a certain number of furrows. In exchange the able bodied men give one or two days' work without payment at the time of the threshing; the women and the aged do nothing in return. The farmer often indeed carries the crops of those who are old or who live at some distance for them. Many of the recipients of the furrows manage in this way to rear a pig, and each of them lives in comparative comfort.

Further north, in the district of Châteaulin, in Lower Brittany, on all the farms of a certain extent, the farmer sets apart out of his own land a portion as "the field of the poor" ("*champ des pauvres*"). This field is divided in lots of ten or twelve ares amongst the poorest day-labourers, those who have the largest young families, and the old men. This arrangement serves the interests of the proprietor as well as those of the poor. The landowner nearly always is in want of more manure than he has, and when the harvest comes, he wants hands. The day-labourer who has a cow and a pig will allow his surplus manure to be taken, and will work several days on the estate at harvest time in exchange for his parcel of land.

In the east, in several communes of Upper Alsace (Rulisheim near Mulhausen, Wittelsheim, Bernweiler near Dannemarie), every newly set up household receives from eight to ten ares of communal land on the basis of a life-interest. The survivor (whether husband or wife) retains this privilege, but on his or her death the land reverts to the commune. About 1865, the mayor of Rulisheim was anxious to claim these lands for the commune: the tribunal of Mulhausen overruled his application and the grants are still in force. Moreover at Regisheim near Ensisheim, each household receives 15 ares of good wheat land and 15 ares of less good land called *Hurd* and 125 ares of meadow land.

ALLOTMENTS DURING THE WAR

§ I. ALLOTMENTS BEFORE THE WAR

These survivals of a bygone age by their very maintenance vouch for the importance attached in France to the possession of a piece of land. It is in no way surprising that allotments in their modern form grew up very rapidly.

The first French allotments were formed in 1891 by a Sedan cloth manufacturer, Mme. Hervieu, who at first merely looked on their institution as a means of relieving the poor people whom she had been in the habit of assisting. Two years later, their founder got into touch with the Abbé Lemire, newly elected deputy of the Department of Nord, who gave publicity to this initiative, and thanks to his active propaganda, allotments were created at Rosendaël, Arras, Haras, Hazebrouck, Gravelines, Valenciennes, etc. Almost at the same time an article on the work at Sedan which appeared in the *Times* of 4 January 1895, brought about the foundation of an undertaking of the same kind at Saint-Étienne. In 1897 the *Ligue du coin de terre et du foyer* was founded with the aims:

"(1) Of assuring to every respectable and hard-working family the permanent enjoyment and if possible the ownership of a piece of land to cultivate, along with a suitable dwelling house;

"(2) To support companies for the building of workmen's dwellings at cheap rates and co-operative societies with the same object;

"(3) To induce charitable societies and institutions whether public or private to secure to those they assist a piece of land that cannot be seized and to make possible the building of a house for them;

"(4) To further State, departmental and communal action having the same object in the management of their lands;

"(5) To encourage all gifts and bequests directed to such objects;

"(6) To obtain the passing of laws declaring exempt from seizure and from taxation a minimum family property (*bien d. famille*) and facilitating the acquisition, the maintenance and transmission of such property;

"(6) To set up "*caisses de loyer*" (1);

"(8) To negotiate with the public authorities to obtain regulations in accordance with hygiene and morals in the matter of public highways and the construction of workmen's dwellings".

Considerable activity was subsequently displayed by the League. In 1898 the first congress on allotments was held. There were 45 organizations represented, with about 2,000 allotments in all. In October 1903 an International Conference, meeting at Paris, disclosed the existence of 134 organizations, owning 6,592 allotments of a total area of 269 hectares, 26 ares and 73 centiares.

In 1909 the League obtained Government recognition as a public utility society, which made it possible for it to receive gifts and bequests.

(1) The *Caisse de loyer* are small banks wherein workmen make weekly deposits which are withdrawn at the end of the quarter for the payment of rent.

Four years later, on the eve of the War, the League had already received five donations from living persons and two bequests. More than two hundred thousand francs had thus passed into its hands and were at the disposal of the local allotments societies at Dijon, Tours, Quésnoy-sur-Deule (Nord), Paris and Brochon (Côte-d'Or).

At the same time the work of the League was multiplied tenfold by its recognition as a public utility society. It approached every kind of unofficial body, whether civil, religious or military, and thus found itself listened to even in the colonies, and the allotments of Madagascar and the military allotments of Tonkin vied with the little plots of land in Burgundy or Lorraine.

Benevolent societies lent every kind of assistance. They recognized that of all the ways of helping by giving work the allotment is the simplest and most efficacious. The Society of Saint-Vincent de Paul at its meetings urged this form of assistance with more and more insistency. The Charitable Boards for their part recognized the advantage that resulted to them from a kind of assistance that sorted out those in want and only assisted the deserving. The Boards of Nancy, of Étampes, of Agen, of Chauny vied with one another.

The Horticultural Societies, which might have felt alarm on their members' account at the prospect of the competition of the produce of the allotments, did their best to encourage the cultivators. The Chauny Horticultural Society arranged a large number of various types of competition, even instituting school competitions with a view to creating the spirit of emulation among the teachers; that of Beauvais held a number of horticultural courses for workmen taking up gardening. At Paris the National Horticultural Society opened its autumn exhibitions to the produce of allotments and admitted them to its competitions.

Following on the Horticultural Societies, the public agricultural offices gave effective support to the work of the League. All their grants are devoted exclusively to new developments, thus providing for extension of the work. A walk round the allotments of Paris and its suburbs will give one a glimpse, here of a well, there of a fence, in another place water laid on, due in each case to a grant from the Departmental Office. One realizes that the subsidy has come at the right moment to permit of new allotments being laid out or to rescue a group of allotments from a disastrous crisis.

Finally a number of the groups of allotments owed their existence to the initiative of employers or companies anxious to give their workmen the opportunity of cultivating the ground.

When mining operations were begun in the North, in the Pas-de-Calais and in the Centre, the companies found themselves obliged to build dwelling houses for the men who were working in the mining works at some distance from the villages. These houses, called *corons*, always had a garden attached to them where the miner could employ the hours when he was free from his regular work, while at the same time he renewed his strength by a bath of fresh air and sunlight, so to speak. The success which these small

plots achieved induced the companies to break up into lots of a medium size lands often of considerable extent which they were obliged to acquire in view of subsidences likely to result in law-suits with the owners of the land lying above the mines. These lots are often very much sought and were cultivated in vegetables (potatoes, cabbages) and even in cereals (oats or rye for rabbits).

No less trouble was taken by the large industrial concerns to encourage the well-being of their workmen by these means. In cases where the work people had to be brought in from outside, it was necessary to build houses, as in the case of the mines. There was a speedy adoption everywhere of the detached type of house, with a garden of several ares attached. Such were the buildings put up at Beaucourt for MM. Japy frères, at Larivière, near Limoges, for MM. Aouillon frères, at Meunil (Lure) for MM. Firmin-Dirol, etc.

Some companies went further, giving opportunity for their workpeople to rent land at reduced rates. The Saint-Gobain Ice Company, for example, grants land to its workpeople, which it undertakes to manure and till each spring.

The Montataire Iron-Smelting Company, near Creuil, does not content itself with annexing a garden to each of the dwellings put up for its staff. It possesses considerable areas of land which it has distributed amongst its workpeople in small lots, usually of about four ares. Not only are these gardens much sought after, especially by workmen of Flemish origin who form a third of those employed at the factory, but many of the workmen not being able to obtain an allotment or finding it insufficient for their needs, rent other pieces of land belonging to other landowners.

The Blanzy Mining Company, which has laid out four villages in the neighbourhood of Monceau comprising more than a thousand dwellings in all, has established a special loan department for purchase of land and for building. Since 1 January 1893 this department has been placed in the hands of a popular bank of which the workpeople are at once the shareholders and administrators. The loans, guaranteed by a life insurance policy and a mortgage on the ground, are repayable in fifteen years.

At the time of the Fourth National Congress, in 1912, there were 281 organizations in France with 17,825 allotments.

§ 2. ALLOTMENTS DURING THE WAR.

The development of this movement was inevitably modified by the War.

In the first place, from the fact of invasion, France was divided into two quite distinct zones, that occupied by the enemy and the remaining territory. In the former, the allotments properly so-called multiplied very rapidly: in the second we find, besides this kind of garden, also soldiers' gardens and school kitchen gardens. We will make some study of these four types in turn.

Gardens in the Invaded Regions — In the invaded departments the range of the allotments was considerable but limited to certain localities.

In all the large centres the method was the same: the German authorities seized all the land: to meet the pressing needs of the population, they left a part at the disposal of the municipalities, instructing them to parcel them out and divide them among the inhabitants. At Sedan there were thus distributed 9,000, at Lille 2,058, at Tourcoing 8,000, at Roubaix 32,000 allotments. At Roubaix, the Cultivation Committee formed by the Municipality had first of all to overcome the hostility of the farmers, furious at finding themselves dispossessed, then to draw plans, make roads, and parcel out the ground: then to get together gardeners who were practically novices, and had no tools and no seeds. Plots were marked out of 65 square metres. Tools were made. Arrangements were made for the gardens to be watched day and night: 350 men were employed in this essential task. As a consequence of the measures taken, potatoes which in April 1918 were worth six francs the kilogramme fell to two francs at the end of September and to sixty centimes at the beginning of October. The other vegetables followed suit. As each family had a garden the vegetables sent to market found few purchasers.

At Maubeuge, 2,500 gardens were brought into existence during the occupation; at Charleville, lands deserted by those who had left the district were redivided among the inhabitants of the municipality, etc. In 1918 a total of about 60,000 gardens were reckoned for the whole of the invaded districts.

Allotments in Other Parts of the Country. — Mobilization did not interfere with the spread of allotments in the other parts of France. As the men had to go, the women took their places, and everywhere could be seen mothers of families devoting themselves to the work of the allotments, digging, sowing seeds, watering while the children were at school, or with the tiny children by their sides. Other women, who were working in the factories, came in the evening or on Sunday to do the work for which they had not another moment. All made considerable profits out of their allotments when well cultivated.

The work on the allotments was not only for oneself, but for others. People willingly gave a helping hand to the less experienced: to help the widow and the orphan, the work of the husband or the father who had fallen on the field of honour was gladly done. At Arcueil, a mother of a family died at the very time of the mobilization of her husband: a neighbouring allotment-holder, himself the father of eight children, did not hesitate to take in the five children of the dead woman. At Issy-les-Moulineaux, a poor woman, mother of a family, had just lost her husband, who fell at Verdun: her grief and mental distraction prevented her from working on her allotment as she should have done to make a profit from it: the neighbours foresaw this and the following Sunday the little piece of land was almost crowded with neighbouring allotment-holders, all eager to help in cultivating it.

Not only were the pre-war allotments cultivated, but many new ones

were made. Towns, departments, agricultural and horticultural societies distributed pieces of land in thousands to as many families.

The Mayor of Rennes turned agriculturist and sold potatoes to his fellow-citizens at 7 francs a quintal. The Mayor of Montrouge, near Paris, took possession of all the vacant lands of his commune. These examples and many others bore fruit and before long organizations and private individuals vied with each other: vegetables and fruit were everywhere in evidence, and it caused no surprise to find cabbages and lettuces growing in gardens once reserved for the cultivation of the rarest and most delicate flowers. The Duchess of Uzès set the fashion and châteaux became surrounded with a belt of vegetables. At Toulouse, the Municipality had 70 hectares cultivated as a kitchen garden; at Saint-Étienne more than 100 hectares of land, situated in the immediate vicinity of the town, were put under cultivation. At Lyons the number of allotments was doubled, rising to nearly 1,200.

Soldiers' Vegetable Gardens. — As early as the beginning of 1915, when the plentiful resources of the country still seemed inexhaustible, the *Ligue du coin de terre et du foyer* had foreseen a day when France would find herself constrained to economize, when all waste would have to be carefully avoided, and it would be necessary to push production to its maximum intensity. The League had reflected on the enormous services which could be rendered by the hundreds of thousands of men who at certain hours were crowded in the depots without any definite occupation and who at the end of the day, not knowing what to do with themselves, drifted into the public-houses near the cantonments. It seemed to that body that these hours of idleness could be utilized quite easily in the creation and upkeep of extensive vegetable gardens which could be established on the waste lands near the cantonments.

Some unofficial organizations and some military bodies had made efforts to create vegetable gardens of no great extent intended to feed the civil population and the army, but these initiatives, often very modest, and always scattered, had not achieved any great results: they even excited sarcasm and criticism, more or less justified.

The essential solidarity was lacking: the military administration had labored wisely and far-seeing regulations, suitable for peace-time, but too restrictive for time of war, and these acted as so many hindrances to the projected scheme.

The *Ligue du coin de terre et du foyer* did not allow itself to be discouraged: it overcame all difficulties, and had the satisfaction of seeing in the spring of 1916 a member of its Management Committee, M. Maxime Ducrocq, at that time mobilized as Deputy Military Intendant, entrusted by the Ministers of War and Agriculture with the business of drawing up a plan for the war gardens and of directing its application. Some days afterwards, 10 May 1916, a Circular of the Minister of War was issued to convey decisive instructions to the army.

M. Ducrocq's comment on this Circular was contained in a very pithy remark made in the course of a lecture which he delivered on

February 1918 at the Musée Social, Paris: "In substance, the Circular said to commanding officers. You must make gardens under the old rules if you can. and if you can't, then you must make them without."

The officers commanding the depots under the direct pressure of the circular, urged on by disinterested offers of help from the civil authorities and entreated to yield by their own troops, did not hold out long. And everywhere the work was put in hand.

Success exceeded all expectations.

The appeal addressed to the soldiers touched their deepest feelings: the greater number, cultivators by origin, could not think of their former occupations without regret. The earth exercised an irresistible attraction on them, and their nostalgia was very keenly felt as they wandered aimlessly about the cantonment. The sight of the abandoned fields, invaded by grass and thistles, filled them with a vague feeling of unhappiness, and it was with joy that they took up once more, as soon as it was asked of them, the implements which they had been accustomed to handle since childhood.

They took great pride in displaying their knowledge to their town-bred comrades: these latter, of whom many had been initiated into the pleasures of small cultivation by the help of the *Équipe du coin de terre et du joyau*, did all they could to rival their country-bred companions, and before long, with the help of the lecturers and propagandists of the League, soldiers' gardens and regular farms sprang up in a great number of cantonments. Their number became rapidly so considerable that in 1917 competition between makers of gardens took place all over France, and the volunteer gardeners were thus rewarded for their efforts. At the end of this year according to the reports furnished by the military lecturers, 7,500 hectares were brought under cultivation in vegetables, 6,000 pigs were being fattened in the military piggeries, 30,000 rabbits and 2,000 head of poultry were being raised in the hutches and yards. On 1 October 1918, the area cultivated, including the gardens of the allied armies, amounted to more than 13,000 hectares, while 14,000 pigs and 11,400 rabbits and fowls were being kept.

These results had been achieved, thanks to the friendly support of the military authorities concerned, and by employing in connection with the scheme seven persons (of whom three were voluntary unpaid workers) at the central administrative offices and in the various districts sixty lecturers of the grade of non-commissioned officer or private. The total expenditure for propaganda and inspection was about 250,000 francs, which represents eight francs per hectare cultivated, even if we do not take into consideration that part of this expenditure was on the encouragement of poultry keeping.

School Vegetable Gardens. — The first school vegetable gardens date back, it seems, to the month of May 1916. They owed their initiation to a professor of the Lakanal Lycée at Paris, M. Lavarenne, who took on lease from the Orleans Railway Company a piece of land situated at Sceaux. Between 11 May and 1 June a part of this land was planted in

potatoes : in June and July, another piece was planted in beans of different kinds : from the end of June to the middle of August there followed cabbages and cauliflowers : in August turnips and spinach were sown. The whole work of preparing the soil, planting, hoeing, and gathering, was carried out by groups of scholars placed under the direction of persons who had not themselves had any previous practice in horticulture. These groups worked on Thursday afternoons and on Sundays during the school term : three times a week in August, once a week in September ; on days when the weather was bad, however, work was suspended.

In spite of unfavourable conditions, in spite of losses caused by potato blight, by caterpillar and by the first frosts, the twenty ares or so of land brought under cultivation returned a yield which, when sold to private individuals at current prices, covered all the cost of renting and enclosing the land, purchase of seed and plants, etc., amounting to 340 francs, and left a clear profit of 170 francs, which was handed to the local people's kitchen.

The example of this first *chantier de culture* was quickly followed. The boys and girls of Paris opened similar *chantiers*. Under the impulse given by Mlle. Bréal, professor at the Seigné College, and by Mme. Hanaux of the Fénelon Lycée, nearly three hundred school-girls spurred each other on to the growing of vegetables on a piece of land rented for the purpose in the commune of Bagneux. These girls were divided into groups of six to ten each placed under the direction of an older girl, and each day the work was directed by a *chef du chantier* who was responsible. Anyone wishing to join a group had to promise to attend regularly on certain days at certain hours. No subscription was asked, but each gardener was asked to bring a gardening tool, as well as her own meal.

All over France each day saw similar undertakings begin, so that in 1917, 1,200 hectares were being cultivated in 12,000 communes by 90,000 school-girls and 125,000 school-boys. We subjoin a statement of the kind of crops grown and the produce obtained :

Potatoes	8,000,000	kilogrammes
Cabbages	1,000,000	cabbages
Leeks.	1,250,000	leeks
Carrots and turnips . . .	250,000	kilogrammes
Haricot beans, peas, broad beans, etc.	800,000	"
Guinea-pigs	300	"
Rabbits.	53,000	"
Poultry.	15,000	"

The total value of this produce amounted to 4,772,000 francs (1).

(1) *La Main-d'œuvre agricole*. Paris, 10 April 1918.

§ 3. ALLOTMENTS AFTER THE WAR.

Many of the kinds of gardens of which we have been speaking had been established on requisitioned land : they had to be given up the day those lands were restored to their owners : many others, which originated in passing needs, did not survive the War. Nevertheless, when after the liberation of the territory the *Ligue du coin de terre et du foyer* addressed itself to the members enrolled before 1914, it regained all its support and indeed an increased support. The municipalities, which had previously had confined themselves to making grants towards the allotments, had now entered the movement. In the North and especially in the liberated regions they were bent on carrying on the work which during the enemy occupation had saved so many of their citizens from famine : Anzin, Fournies, Valenciennes, Saint-Pol-sur-Ternoise, more than thirty municipalities decided to have their own allotments organization. Efforts in the same direction were everywhere made. All over France, from Dunkirk to Bayonne, from Strasburg to Nantes, as well as at Paris and at Lyons, we find the municipalities multiplying initiatives of this kind.

On the other hand, the League seemed to have gained the full support of the public authorities. At its request the Minister of War placed at its disposal all lands not required for the defence of fortified places. The Minister of Health addressed to the prefects a circular drawing their attention to the allotments movement and asking them to intervene in every possible way so as to give the greatest possible impetus to it.

At the same time, new types of undertakings sprang up, such as the Co-operative Allotments Society of Belfort, which was founded in February 1919 and now includes more than 150 members and would include more if it had any new gardens at its disposal (1). As compared with 17,825 allotments in 1912, the *Ligue du coin de terre et du foyer* had 47,375 in 1920, spread over 58 departments. These allotments were in all 1,266 hectares in area, and about 240,000 persons were working on them.

M. B.

(1) The working of this co-operative society has been described by M. A. Arnal, Professor of Agriculture at Belfort, in *La vie agricole et rurale*, Paris, 7 May 1921.

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PRINCIPAL WEIGHTS, MEASURES AND MONEY OF THE VARIOUS COUNTRIES AND THEIR BRITISH EQUIVALENTS

1 Cadastral arpent (Hungary)	=	1.42201	acres
1 Centimetre	=	0.393715	inches
1 Cho (60 ken) (Japan)	=	119.30327	yards
1 Crown 100 heller (Austria-Hungary)	=	10 d.	at par
1 Crown (100 öre) (Denmark, Norway, Sweden)	=	15.1 $\frac{1}{8}$ d.	at par
1 Deciatine (2 tchetwert, (Russia	=	2.69966	acres
1 Dinar, gold (100 para) (Serbia)	=	933/64 d.	at par
1 Dollar, gold (\$) (100 cents) (United States)	=	48.5/16 d.	at par
1 Drachm, gold (100 lepta) (Greece)	=	933/64 d.	at par
1 Egyptian Kantar	=	99 0498	lbs.
1 Feddan Masri (24 Kirat Kamel) (Egypt)	=	1.03805	acres
1 Florin, gold, or Gulden (100 cents) (Netherlands)	=	15.753/64 d.	at par
1 Franc (100 centimes) (France)	=	933/64 d.	at par
1 Gramme	=	0.03527	oz.
1 Hectare	=	2.47109	acres
1 Kilogramme	=	2.2	lbs.
1 Kilometre	=	1093.613	yards
1 Kokou (10 To) (Japan)	=	1.58726	quarts
1 Lei, gold (100 bani) (Rumania)	=	983/64 d.	at par
1 Leu (100 stotinki) (Bulgaria)	=	933/64 d.	at par
1 Lira (100 centesimi) (Italy)	=	933/64 d.	at par
1 Litre	=	{ 0.21998	gallons.
		{ 0.0275	busheis
1 Mark (100 Pfennige) (Germany)	=	11 3/4 d.	at par
1 Mark (100 penni) (Finland)	=	933/64 d.	at par
1 Metre	=	3.28084	feet
1 Milreis, gold (Brazil)	=	25. 261/64 d.	at par
1 Milreis, gold (Portugal)	=	48. 519/64 d.	at par
1 Peseta, gold (100 céntimos) (Spain)	=	933/64 d.	at par
1 Peso, gold (100 centavos) (Argentina)	=	35.1137/64 d.	at par
1 Peso, paper (Argentina)	=	18.815/16 d.	at pa
1 Pound, Turkish, gold (100 piastre) (Ottoman Empire)	=	188.015/64 d.	at par
1 Pund (Sweden)	=	0.93712	lbs.
1 Quintal	=	1.96843	cwis.
1 Rouble, gold (100 kopeks) (Russia)	=	28.1 3/8 d.	at par
1 Rupee (16 annas) (British India)	=	$\frac{1}{10}$	of £1 (gold)
1 Talari (20 piastre) (Egypt)	=	48.111/32 d.	at par
1 Verst (Russia)	=	1166.64479	yards
1 Yen, gold 2 fun or 100 sen) (Japan)	=	28.037/64 d.	at par
1 Zentner (Germany)	=	110.23171	lbs.

INTERNATIONAL INSTITUTE OF AGRICULTURE
BUREAU OF ECONOMIC AND SOCIAL INTELLIGENCE

INTERNATIONAL REVIEW
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(MONTHLY BULLETIN
OF ECONOMIC AND SOCIAL INTELLIGENCE)

Co-operation and Association

SPAIN.

THE SARAGOSSA FARMERS' ASSOCIATION:

SOURCES :

ESTATUTOS DE LA ASOCIACIÓN DE LABRADORES DE ZARAGOZA. Saragossa, 1914.
REGLAMENTO PARA EL BUEN ORDEN Y RÉGIMEN DE LA CAJA DE CRÉDITO AGRÍCOLA. Asociación de Labradores de Zaragoza y su provincia. Saragossa, 1909.
Boletín de la Asociación de Labradores de Zaragoza. Years 1916 to 1922. Saragossa.

The Saragossa Farmers' Association (*Asociación de Labradores de Zaragoza*), which was formed on 22 April 1900 under the Associations Law of 1887 is reckoned as one of the most important agricultural societies in Spain, on a level with the General Stockbreeders' Association of the Kingdom (*Asociación general de Ganaderos del Reino*), the Farmers' Association of Spain (*Asociación de agricultores de España*) the Saragossa Stockbreeders' Institute (*Casa de ganaderos de Zaragoza*) and the Catalan Agricultural Institute of Saint Isidore (*Instituto Agrícola Catalán de San Isidro*).

The object of the Association, the activity of which is being extended also beyond the limits of the three provinces of Aragon, is that of developing the spirit of association among the agricultural classes, and of encouraging and assisting them by the regular working and further development of the various services already in existence in the association and by inaugurating new services to meet the needs which may arise in the agricultural world.

§ I. ORGANIZATION OF THE ASSOCIATION.

The Association is managed by a Council of Management, divided into three Committees — a Committee for Social Questions, a Committee for Co-operation, and a Committee for Credit.

It is the business of the first Committee to supervise the working of the library and of the laboratory attached to the Association and the issue of publications and to study the various problems relating to agriculture.

The Committee for Co-operation arranges for exhibitions of farm produce, for the distribution of seeds, of agricultural machinery, of fertilizers, etc. Finally the Committee for Credit administers the Credit Bank and is expected to develop its activity in the interests of the members.

The chairmen of the three Committees and the President of the Association form a Higher Council, which has the duty of making a study of and of preparing the questions that are to be handled and resolved by the Council of Management, which as the directing body of the Association must sit permanently at Saragossa, and is made up of a President, of a Vice-president, of eleven members with voting rights, and of two treasurers, all having, in the discussions and in the passing of resolutions, equal rights as regards speaking and voting.

The Council of Management and the "Procurators", nominated every two years by the members, constitute the General Council, which meets in ordinary session once a year, and in extraordinary session as often as may be requested by the Council of Management or by a third at least of the number of the Procurators.

In the General Council the only persons having the right to speak and to vote are the President, who is also the President of the Association, the Procurators duly elected and their deputies. The other members of the Council of Management have the right to speak, but not to vote.

The Procurators or their deputies exercise three votes each and have the privilege of bringing forward any proposal whatever provided it is relevant to the business before the Council. Whenever it is declared by a majority of votes that it is urgent to discuss the proposal submitted, the Council may discuss it and pass resolutions at the same sitting.

In some localities, where the number of the members requires it, Delegates, or Assistants, or Local Committees are nominated to act as intermediaries between the members and the Council of Management, with the object of simplifying some of the work of the Association, such as the collection of subscriptions, the distribution of fertilizers, the applications for loans, etc.

Members. — The Association includes four classes of members:

(a) foundation members: landowners or cultivators, or persons engaged in industries or pursuits connected with agriculture, who pay an entrance fee of 20 pesetas and an annual subscription of 6 pesetas;

(b) ordinary members whose qualifications are the same as those of foundation members, but who pay an entrance fee of one peseta and an annual subscription of six pesetas;

(c) corporations or corporate bodies admitted to the Association at the request of the persons entitled to act in their name;

(d) honorary members, nominated by the society or the Council of Management.

Foundation members and ordinary members have the right to elect

the Procurators and their deputies, who are to represent the members in the General Assembly, and further of being themselves elected, after two years from the time of their admission into the Association, as Procurators or deputies, and of assisting in the various activities of the Council of Management. They may then avail themselves of all the privileges offered by the society to its members, except that of taking part in the free valuation of the credit capacity of the applicants for loans from the Bank of the Association, a matter within the competence of the Committee for Credit.

They have besides the right of presenting proposals in writing at any time to the Council of Management and to the General Council.

§ 2. SERVICES AND WORK OF THE ASSOCIATION.

The Association possesses a library, a chemical laboratory, an Agricultural Credit Bank, a Savings Bank, a Current Accounts Department a Personal Credit Department, and other sections dealing with the distribution of fertilizers and seeds, the insurance of crops against hail, and insurance against farm accidents.

We will briefly examine these various activities of the Association.

Library. — The library contains more than 1,000 works, partly purchased by the Association, partly given by private donors, and a large number of Spanish and foreign reviews, chiefly on agricultural subjects.

Agricultural Laboratory. — The laboratory, established as early as 1904, is engaged in the analysis of soils, fertilizers, alcohols, wines, and oils, in seed selection, and in questions of plant diseases. Besides this it gives replies to all the enquiries put to it on the subject of improved cultivation. These services are rendered to members without charge.

Agricultural Credit Bank. — The Agricultural Credit Bank established in 1902, and declared by Royal Decree a Benevolent Fund, grants loans exclusively to members, on the personal guarantee of two sureties accepted by the Managing Committee.

Applicants must have been members of the Association for more than one year and must produce evidence that their subscriptions have been paid punctually. When there are several applications from members at one time, those who have been most punctual in payment have the preference.

The rate of interest fixed by the Bank, for the said loans, is four per cent. per annum.

The Bank capital, formed at the beginning of its operations by an issue of 12,500 pesetas share capital, consisting of 500 shares of 25 pesetas each, an issue now paid off, is being increased every year by the interest that is paid on loans, by the annual profits, and by any other source of income there may happen to be such as donations, official subsidies, etc

Agricultural Savings Bank. — This Bank was instituted in February 1915, with the aim of improving the social and material conditions of the members of the Association and of farmers in general, by encouraging

saving. It receives deposits for fixed periods or withdrawable at sight, both from members and from third parties.

Deposits for fixed periods may be for six months or for a year and must not be less than 500 pesetas, the Council of Management retaining the power to fix a maximum, when it is considered desirable in the interest of the members.

The deposits withdrawable at sight must not be less than one peseta, nor more than 10,000 pesetas.

The rate of interest on deposits withdrawable at sight is 3.65 per cent; that on deposits for six months is 4 per cent. and that on deposits for a year is 4.25 per cent.

The Association is liable up to the full extent of its assets for the deposits received by it.

Current Accounts and Personal Credit. — The Association grants to members two other forms of credit: current accounts (*cuentas corrientes*), and personal credit accounts (*cuentas de crédito personal*).

The lowest sum on which a current account can be opened is fixed at the figure of 100 pesetas; the maximum sum is determined by the Committee for Credit. The annual interest is fixed by the Council of Management, in accordance with the proposals of the Committee for Credit.

As regards the personal credit accounts, the applicant must state the maximum sum for which he will be indebted and the persons who will act as sureties. Within ten days from the date of the application, a reply is given, and in the case of this being a favourable one, the applicant can, in the course of three days from the signing of the documents relating to the granting of the credit and to the security offered, have at his disposal the sum to be advanced to him.

On the expiry of the term agreed upon, the sum advanced must be repaid, together with interest at the rate fixed in advance. Notice will be given to the borrower to provide for such payment within a space of eight days.

Distribution of Fertilizers. — The distribution of fertilizers, which is one of the most important branches of the work of the Association, is the business of the Committee for Co-operation. It is the duty of this Committee to buy fertilizers at the proper season, to submit them to examination and analysis in the laboratory and to fix the price at which they are to be distributed to the members.

Payment for the fertilizers bought must be made in cash or within thirty days of the date of purchase, on pain on the debtor's part of paying interest at the rate of four per cent. per annum. The managing body can proceed at once to the recovery of the sum due.

Recently the Council of Management, being persuaded of the immense advantages which would accrue to farmers if advances of fertilizers were made to them at the time of the preparation of the soil, has instituted this new form of loan, on conditions that we here reproduce.

1. Advances of fertilizers do not preclude the possibility of money advances from the Agricultural Credit Bank of the Association.

2. They are only granted in the season in which the fertilizers can be put to use.

3. A sufficient time in advance, the date fixed for the presentation of applications on the part of the members is published in the Monthly Bulletin. The application must state the quantity of fertilizer applied for and the security offered by the applicant.

4. The applications will be considered by the Committee for Credit which has the power of granting or refusing to make the advances.

5. The date fixed for the repayment of the advances will fall after the harvesting of the crop.

6. In making the advances, preference is given to the local committees or to groups of members of the same locality, who have made joint application for them, and who are jointly and severally liable for the obligation contracted.

7. The rate of interest on advances of fertilizers is the same as is in force for money loans made by the Agricultural Credit Bank, and the advances will be of the nature of an obligation secured by a bill of a special type.

8. It is the duty of the Committee for Co-operation and of the managing staff of the Association to interest themselves in whatever concerns the distribution of fertilizers, and of the Committee for Credit to fix the maximum quantity which may be advanced in each locality and to overcome all the difficulties that may arise, once the advance is made.

It has been thought fit, in making these arrangements, to give preference to applications made by the local committees, or by groups of members in the same locality, in view of the fact that the sending of fertilizers in quantities larger than one truck-load comes out more cheaply in transport expenses and is of more advantage to all the joint purchasers by avoiding delays of all kinds.

The joint applications may also be addressed directly to factories in order that the goods may be despatched with less delay.

Distribution of Seeds. — The same arrangements are made for the distribution of seeds as are made for the distribution of fertilizers.

Mutual Insurance against Fire. — In this branch of its work the Association acts as agent of the Insurance Fund, founded by the Farmers' Association of Spain at Madrid, and, accordingly, sends on the proposals of the members, undertakes the forwarding of policies, the collection of the premiums, nominates experts to estimate the losses sustained by insured persons, distributes the compensation, etc.

Accidents in Farm Work. — The Association has arranged a scheme of insurance against accidents in farm work with the Saragossa Mutual Accident Insurance Company.

The yearly premium to be paid by those desiring to be insured is fixed at the rate of 20 pesetas for every hectare of irrigated land, and at 10 pesetas for every hectare of land not irrigated.

Other Activities of the Association. — The Association also interests itself in the production of sugar-beet, in contracts with sugar-manufac-

turers, in the growing of cereals, in questions of transport, and in the organization of Chambers of Agriculture and of other agricultural bodies.

It takes a prominent part in exhibitions, competitions, prizes for agriculture, benevolent institutions, etc. It publishes pamphlets on various agricultural problems, which are distributed free. It also publishes a Monthly Bulletin, which is not only a scientific agricultural review, but is a means of communication between the society and its members, supplying information about the different activities of the Association, the prices of fertilizers, etc.

We may add some data referring to the activity of the Association in its last working year 1921-22.

The total number of the members, including the corporate bodies which are counted as members, amounted on 31 March last to 5,206. In the laboratory 417 analyses were made and replies were sent to 349 enquiries.

The Agricultural Credit Bank made loans to a value of 215,419 pesetas. The loans outstanding on current account at the end of the year amounted to 172,307 pesetas, and the outstanding loans on personal credit to 224,405 pesetas. The advances of fertilizers and seeds made during the year amounted to 465,301 pesetas.

Fertilizers were distributed to the value of 1,158,255 pesetas, seeds to the value of 42,915 pesetas. In insurance of crops against hail, the Association's share in the business of the Mutual Insurance Fund was in respect of an assured value of several millions of pesetas.

The general balance sheet on 31 March shows assets amounting to 2,425,913 pesetas.

E. F.

SWITZERLAND.

THE INQUIRY OF THE SWISS PEASANTS' SECRETARIATE INTO AGRICULTURAL ASSOCIATION AND CO-OPERATION IN THE YEAR 1920.

SOURCE:

ERHEBUNGEN ÜBER DEN STAND DES LANDWIRTSCHAFTLICHEN VEREINS- UND GENOSSENSCHAFTSWESENS IN DER SCHWEIZ IM JAHR 1920. Enquiry carried out by the Swiss Peasants' Secretariate Brugg, 1922

The Swiss Peasants' Secretariate carried out in 1910 the first enquiry into the position of the agricultural associations and co-operative societies of Switzerland, the results of which were given in detail in the issues of March and April 1913 of the *Bulletin of Economic and Social Intelligence*. The enquiry was repeated by the Peasants' Secretariate in the course of 1919-20 and the results were published in 1922. The importance of these enquiries

is due to the fact that, whereas Switzerland is the country in which the societies are relatively more widely spread and present a greater variety than in any other — in fact, even before the War, in the year 1910-11, there was a society for every 481 inhabitants, while in Denmark there was only one for every 514 inhabitants and in Germany one for every 2,124 inhabitants (1) — there is no institution capable of recording the development of the movement for the organization of agriculture in its entirety, no League embracing all the societies and serving as a centre of information. The Federal Office of Statistics has for some years past begun to include in its year-books the different associations, but the returns relating to them are not yet completed. The publications of the Peasants' Secretariate on the subject must accordingly be considered as the fullest source of information on the growth of the agricultural associations. A comparison of the results of the two enquiries will make it possible to trace out a picture of the situation in the years from 1910 to 1920: for this purpose we shall necessarily make free use of the figures and other statistical data.

§ I. AGRICULTURAL ASSOCIATIONS AND SOCIETIES.

Agricultural associations and societies mainly promote the technical and economic development of agriculture and a distinction is to be made between agricultural societies properly so-called, societies for poultry-keeping and rabbit-breeding and bee-keeping societies, and each of these groups is subdivided into local, cantonal and intercantonal associations.

Agricultural Societies properly so-called. — In 1920 there were 519 local agricultural societies in the strict sense, as compared with 494 in 1910, an increase of 25 associations, or five per cent. The number of members rose from 60,084 in 482 societies in 1910 to 81,059 in 500 societies in 1920. The greater number of these societies were founded from 1850 onwards. The canton of Zurich has the highest number of these societies, namely 110 associations. Thurgau comes next with 59 and Berne with 46. Of the local societies, 467, that is 90 per cent., are grouped into federations. In the last decade registration of these societies in the Commercial Register became more frequent: in 1910 122 societies were registered, in 1920, 189, that is 36 per cent. The new civil law of 1912 recognized these associations as corporate bodies without requiring registration.

In 1920 there were 28 agricultural cantonal societies, with sections, numbering 167,270 members as compared with 22 societies in 1910 with 90,969 members. The oldest of these societies (founded in the eighteenth century) and at the same time the most important as regards number of members is the Economic and Public Utility Society of the Canton of Berne, founded in 1759 with the title of *Societas Bernensis Agriculturae et Bonarum Artium*. In 1920 it had 90 sections with 68,710 members as

(1) MULLER (Hans): Das Genossenschaftswesen und seine gesetzliche Regelung im demokratischen Reichsstaat. *Zeitschrift für Schweizerische Statistik und Volkswirtschaft* Year 57, Vol. 2. Basle, 1921.

compared with 74 sections with 31,194 members in 1909. The Cantonal Agricultural Association of Zurich, founded in 1842, had a larger number of sections but a much smaller number of members; it had 138 sections and 11,567 members. Of recent years the following cantonal agriculture associations have been formed: in the year 1918 the Federation of the Agricultural Associations of Glarus with 500 members, in 1920 the Chamber of Agriculture of the Canton of Vaud, and in 1921 the Chamber of Agriculture of Geneva. Fifteen of the cantonal societies publish their own journals.

As to the cantonal agricultural associations with direct membership, the enquiry only mentions five with 2,692 members, among which is the Neuchâtel Farmers' Association with 1,200 members, founded in 1919. In 1910 there were eight of these societies with 3,987 members. These associations are thus on the decline.

To these cantonal agricultural associations may be added the scholastic agricultural associations, the number of which has nearly doubled in the last ten years: from 15 in 1910 with a total membership of 4,169, they rose in 1920 to 28 with a total membership of 7,815.

The Swiss Confederation recognizes the following societies as intercantonal agricultural associations: the Swiss Agricultural Association, founded in 1863, with 31 sections and 81,448 members in 1920, as compared with 29 sections and 40,011 members in 1910; the Federation of Agricultural Societies of Romance Switzerland, founded in 1881, with 28 sections and 34,922 members in 1920, as compared with 31 sections and 23,064 members in 1910; the Cantonal Agricultural Society of Ticino; the Swiss Society of Alpine Pastures and the Swiss Horticultural Society. Figures relating to these last three societies are not available. The enquiry also mentions the Swiss Federation of Societies of Ex-Pupils of the Schools of Agriculture, a federation founded in 1921, with a membership of 5,700 and with 13 sections.

The number of the intercantonal societies with direct membership has remained the same. Both the enquiry of 1910 and that of 1920 showed only three of these societies: the Agricultural Society of Romance Switzerland, founded in 1858, with 100 members in 1920, as compared with 135 in 1910; the Swiss Farmers' Society, founded in 1882, with 440 members in 1920 and 210 in 1910, and the League of Instructors of Agricultural Schools, founded in 1901, with 90 members in 1920 and 99 in 1910.

Poultry-keeping and Rabbit-breeding Societies. — The number of the local poultry-keeping and rabbit-breeding societies has increased from 158 to 257, that is to say by 99 societies, or 63 per cent.; the membership has risen from 8,153 to 18,689, an increase of 10,536, or 129 per cent. Practically all these societies are grouped in federations. The greater number belong to the cantons of Zurich and Berne in each of which there are 40 societies, while Aargau has 32 and St. Gall 27. The registration in the Commercial Register has hardly ever been practised by these societies, only about two per cent. being so registered.

The cantonal poultry-keeping and rabbit-breeding societies have risen from 11 with 2,741 members in 1910 to 19 with 12,563 members in

1920. The oldest of these societies is the Lucerne Cantonal Ornithological Society, founded in 1881, which now has 236 members. The one with the largest membership is the Zurich Cantonal Ornithological League with 4,437 members, which was formed in 1911.

The number of intercantonal federations for poultry-keeping and rabbit-breeding has increased from four with 6,610 members in 1910 to 21 with 24,715 members in 1920. Practically all these societies have been formed in the last two decades. The oldest and, in point of numbers, the largest, is the Swiss Ornithological Society, founded in 1885 ; it contained 17,500 members in 1920.

Bee-keeping Societies. — The number of the local bee-keeping societies has risen from 121 to 143, that is by 22 societies, or 17 per cent., and that of the members by 8,163, passing from 7,330 in 1910 to 15,493 in 1920 (111 per cent.) Berne has the greatest number of societies (28), followed by St. Gall (16), Aargau, Zurich, and Grisons (14 each). Of these societies 130, that is 91 per cent., are affiliated to federations ; only two per cent. are registered in the Commercial Register.

The number of the cantonal bee-keeping societies has risen from 16 with 4,221 members in 1910 to 27 with 11,900 members in 1920. The oldest among these date back to 1863, such as the Association of Upper Zurich and those of Romanshorn in Thurgau. The most recent was formed in Appenzell in 1917.

The intercantonal bee-keeping societies are two in number as in 1910 ; the Swiss Society of the Promoters of Bee-keeping, founded in 1861, with 7,296 members in 1910 and with 16,086 in 1920 and the Bee-keeping Society of Romance Switzerland, founded in 1876, with 1,360 members in 1910 and 3,500 members in 1920.

So as to give a general idea of all the agricultural societies in the years 1910 and 1920, we group the statistics in the following table :

TABLE I. — *Local, Cantonal and Intercantonal Societies in the years 1910 and 1920.*

Types of societies.	Local societies.			Cantonal and intercantonal societies.				Local, cantonal and intercantonal societies taken together.				
	1910		1920	1910		1920	1910		1920	1910		1920
	Number of societies.	Number of members.	Number of associations.	Number of associations.	Number of members.	Number of associations.	Number of associations.	Number of members.	Number of associations.	Number of members.	Number of associations.	
Agricultural Societies properly so-called	494	60,084	519	81,059	50	169,081	67	300,477	544	229,165	586	331,536
Poultry-keeping and Rabbit-breeding Societies	158	8,153	257	18,689	15	9,351	40	37,278	173	17,504	297	55,967
Bee-keeping Societies . .	121	7,330	143	15,193	18	12,877	29	31,486	139	20,207	172	46,979
Total . . .	773	75,567	919	115,241	83	191,309	136	369,241	856	266,876	1,055	484,482

This table shows clearly the situation of the different kinds of societies and the extent of their sphere of action in the years of the two enquiries. In the first rank come the agricultural societies properly so-called, numbering 544 in 1910 and 586 in 1920. The number of members increased in that period from 229,165 to 381,536. The second place falls to the societies for poultry-keeping and rabbit-breeding, of which there were 173 with 17,504 members in 1910 and 297 with 55,967 members in 1920. Last come the bee-keeping societies of which there were 139 with 20,207 members in 1910 and 172 with 46,979 members in 1920. The total number of the societies rose from 856 in 1910 to 1,055 in 1920. There is an exception in the case of the cantonal agricultural associations with direct membership which as we have seen fell from eight to five, while all the others show a rise amounting to 199 in all. The number of members (which in 1920 related to 1,015 societies) rose from 266,876 to 484,482, an increase of 217,606 or 81 per cent. The number of members in the interval between the two enquiries has been practically doubled but it must be borne in mind (as, moreover, it must subsequently be borne in mind in analogous cases) that the number of members stated does not always correspond to the effective number of members, not only because some farmers appear at the same time in different associations, but also because in the inter-cantonal societies there are counted the members of the cantonal societies, and in those cantonal societies the members of the local societies. The membership indicated is thus the total number of members, either direct or indirect, of these associations, each person being enumerated as many times as he appears in the list of members of any society.

§ 2. AGRICULTURAL CO-OPERATIVE SOCIETIES.

The agricultural co-operative societies are distinct from the associations both from a juridical and from an economic point of view. In order to obtain recognition as corporate bodies, the co-operative societies must be registered in the Commercial Register, and their principal aim is to procure economic advantages for their members. In practice there is no very exact line to be drawn between co-operative societies and associations, especially since the new civil law has recognized associations as corporate bodies without the obligation of registration in the Commercial Register. On the other hand the associations also pursue economic aims, although the business they do in this way is carried on, in contradistinction to that done by the co-operative societies, equally in the interests of non-members.

The enquiry of 1920 distinguishes 19 different groups of agricultural co-operative societies, keeping closely to the classification adopted in the first enquiry.

Agricultural Co-operative Societies properly so-called. — The number of the local agricultural co-operative societies of this kind rose from 557 in 1910 to 772 in 1920, an increase of 215, or 39 per cent. The number of members shows a much larger increase, from 48,469 to 80,192, an increase of 31,723 (65 per cent). There is a striking development of these societies

in the cantons of Berne, Zurich, Aargau, Fribourg, Vaud and Geneva. Of these societies 45, that is 6 per cent., are not registered in the Commercial Register and they are therefore improperly called co-operative societies, and are rather to be reckoned as associations. Among the principal economic objects of these societies are the supply of fertilizers and concentrated feeds, and the sale of fruit, must, potatoes, hay, etc.

The number of the federations of agricultural co-operative societies has increased as compared with 1910 from 10 to 13 and the number of their members from 57,259 to 238,849. This very considerable increase is to be attributed in the first instance to the foundation in 1919 of the Central Swiss Federation of Agricultural Co-operative Societies, which includes nearly all the regional and cantonal federations. Of recent origin also are: the Federation of Agricultural Co-operative Societies of the Canton of Schaffhausen founded in 1912, and the Union of the Agricultural Syndicates of Romance Switzerland founded in 1916 at Lausanne. The membership of the federations is generally larger than that of the co-operative societies, on account of the fact that the federations include as sections agricultural associations as well.

Co-operative Dairies and Cheese-making Societies. — The number of the local dairies and cheese-making societies increased from 2,785 in 1910 to 3,519 in 1920, or a difference of 734 (26 per cent.); the number of members from 77,227 to 102,577, a difference of 25,450 (231 per cent.).

It is moreover to be remarked that at the first enquiry 50 co-operative societies, and at the second 67, did not state the number of their members. Since 1910, 671 new co-operative societies had been formed. The difference between this figure and the increase noted above is explicable on the ground that the second enquiry included a number of societies which were previously in existence but for which returns had not appeared on the earlier occasion. The greater number of the recently created societies belong to the cantons of Zurich, Lucerne, Berne, Vaud and Valais. The number of societies of this group which were registered in the Commercial Register was 2,586 or 73 per cent. To the Federations there were affiliated 3,108 co-operative societies. The 411 co-operative societies not affiliated to any federation are for the most part small societies in alpine districts mainly providing for the making of cheese for the use of the members.

Among the cantonal and intercantonal dairy federations are included 15 technical associations — the Milk-producers' Society of Romance Switzerland has been wound up since the enquiry — with a membership of 5,612. The technical associations are engaged principally with questions of a technical nature, assisting the members in the exercise of their profession by means of explanation and instruction. These associations are in touch with the Federations formed among dealers in milk and have for the most part the same members. There are 11 Federations with 2,544 members, all of which were formed during the War, and for that reason do not appear in the former enquiry. They are the following:

Lucerne Milk-dealers' Federation, formed in 1916.

Fribourg Milk-dealers' Society, formed in 1916.

Cheese-makers' Association of the Canton of Vaud, formed in 1916.
 Swiss Milk-dealers' Federation, formed in 1917.

Zurich Milk-dealers' Federation, formed in 1917.

Berne Milk-dealers' Federation, formed in 1917.

St. Gall Milk-dealers' Federation, formed in 1917.

Lake of Zurich Milk-dealers' Federation, formed in 1917.

Aargau Milk-dealers' Federation, formed in 1917.

Thurgau Milk-dealers' Federation formed in 1917.

Solothurn Milk-dealers' Federation, formed in 1917.

The milk-dealers' federations were formed with economic aims and for the safeguarding of the dealers' interest against producers and against trade organizations.

The milk-producers' federations, with the exception of the Lausanne Farm Dairy founded in 1895, have all been formed in the course of the last two decades. Their number increased from 14 in 1910, with a membership of 60,457, to 28 in 1920, with a membership of 196,826. They are spread throughout Switzerland.

The Federations of recent date are :

Vaud Tenant-farmers' Association, formed in 1914.

Federation of Milk-producers of Obwald, Schwyz, Lucerne, Zug and Aargau, formed in 1915.

Fribourg Dairy Societies' Federation (Mountain district), formed in 1915.

Obwald Milk-producers' Federation, formed in 1915.

Nidwald Milk-producers' Federation, formed in 1916.

Appenzell Milk-producers' Federation, formed in 1916.

Appenzell (Rhine Valley) Milk-producers' Federation, formed in 1916.

Ticino Milk-Producers' Association, formed in 1916.

The Vaud Jura Dairy Federation, formed in 1916.

The Neuchâtel Dairy Federation, formed in 1916.

Appenzell Freec Association of Cheese-manufacturers, formed in 1916.

Alpine Agricultural Federation of the Cheese-makers of the Canton of Glarus, formed in 1917.

Valais Milk-Producers' Federation, formed in 1919.

The organization of these, with the Central Federation of Swiss Milk-producers, formed in 1907, at their head assumed a special importance during the War, and has had an important function in determining the prices of milk. In the war time the Federation took up the task of supplying the country with milk and milk products and with this object entered into special agreements with the federal authorities. In this way there was assured to consumers a fair distribution, at a relatively low price.

Co-operative Stock-breeding Societies. — The co-operative stock-breeding societies have increased in number from 913 with 28,438 members at the time of the first enquiry to 1,217 with 40,628 members in 1920. The increase is thus 304 societies, or 33 per cent., and 12,194 members (43 per cent.).

The largest increase occurred in the cantons of Berne, Vaud and Gris-

ons. In the Commercial Register 1,004 of these societies are registered, being 82 per cent. of the total number; 857 societies are grouped in federations. The number of these federations rose from 11 in 1910 to 19 in 1920. In the same time the number of the members in these federations rose from 23,395 to 36,351.

Co-operative horse-breeding societies rose from 44 in 1910 to 56 in 1920. The number of the members practically doubled, rising from 3,821 to 7,575 (98 per cent.). These societies have on an average 140 members. The majority of these societies are found in the cantons of Bern and Vaud. In the Commercial Register 41 societies are registered; 40 belong to federations the number of which was 18 in 1920 as compared with 9 in 1910.

The co-operative goat-breeding societies have developed to a considerable extent. Their number has increased from 220 with 8,265 members to 358 with 11,374 members. The majority of these societies have been formed in the cantons of Bern, Zurich, Solothurn and Aargau. In French Switzerland this kind of society has so far had little development. There are 274 societies of this kind affiliated to federations of which there were 11 with 18,541 members in 1920 as compared with 10 with 9,875 members in 1910.

The number of the co-operative sheep-breeding societies has increased in the same period from 38 with 613 members to 52 with 1,464 members. The majority of those that are of recent formation are found in the cantons of Berne and Grisons. In the Commercial Register only 15 societies of this kind are registered; 24 are grouped in federations. The three existing federations were all formed in 1917. It was not possible to ascertain the number of branches and of members of the principal federations.

The number of the co-operative pig-breeding societies rose from 48 to 82; that of the members from 1,217 to 2,625. In the Commercial Register 57 societies are registered; 59 belong to federations. The nine existing federations were formed between 1911 and 1919. The number of their members is approximately 1,132.

Among miscellaneous co-operative societies there should be mentioned two piscicultural societies, one for breeding of sheep-dogs in the Canton of Appenzell, and the Ticino Co-operative Silkworm-breeding Society, formed in 1918 in the south of the Canton of Ticino.

Co-operative Societies for Fruit-growing and the Sale of Fruit. -- In this group are included co-operative societies properly so-called and associations formed with the object of promoting fruit-growing. Their number has increased from 68 with 3,648 members to 117 with 10,272 members. The majority of these societies are in the cantons of Berne, Aargau and St. Gall. About half their number are registered in the Commercial Register; 79 belong to federations, which numbered 19 in 1920. The oldest and largest of these federations was formed in 1864; it is the Swiss Association for Fruit-growing and for Viticulture, with headquarters at Wädenswil.

Co-operative Vine-growers' Societies. -- These societies are particularly widely spread in French Switzerland. In 1910 they numbered 50 and

in 1920 there were 49 of them. The number of members rose from 2,744 to 3,557. Thirty-four of these societies are registered in the Commercial Register; 17 belong to federations. The number of these last has fallen from 7 to 5, while the number of the members has increased from 2,242 to 2,824. In 1920 the federations in existence were practically all different from those of 1910. Of those shown in the enquiry of 1910 there only survived the Geneva Viticultural Association.

Co-operative Distilleries. — There is a State monopoly of alcohol in Switzerland, and the greater number of the co-operative distilleries are those for which the Government fixes the quantity of absolute alcohol they are to supply. The Swiss Confederation invites tenders for consignments in lots varying from a minimum of 150 hectolitres to a maximum of 1,000 hectolitres per annum. The lots are assigned to co-operative societies on the same terms. In 1920 there were 38 of these societies. There were also 15 societies that handle the raw material for distillation, such raw material being outside the monopoly. The number of the societies in 1920 was diminished by one, thus standing at 52. The number of members rose from 974 to 1,278. The majority of the distilleries (84 per cent.) are registered in the Commercial Register, and 34 belong to federations. The societies distilling alcohol for the Government are grouped in the Swiss Federation of Contractors for the Distillation of Alcohol, which was formed in 1887 and in 1920 had a membership of 820 members in 38 sections.

Co-operative Societies for various kinds of cultivation. — These societies are engaged in the cultivation of cabbages, sugar beet, vegetables, tobacco and cereals. Their number in 1920 was 16 with 731 members, as compared with 15 societies and 1,874 members in 1910. The membership has fallen by more than half. At the date of the first enquiry no federations were yet in existence, with the exception of the Swiss Association of Suppliers of Selected Seeds, formed in 1909, which did not furnish returns. In 1920 there were 11 federations, with 578 members. Besides these in 1921 there was formed the Swiss Federation for the Production of Seeds in which all the cantonal federations are grouped. It has 12 sections and about 600 members.

Co-operative Gardening Societies. — These associations fall into two classes, co-operative societies for the establishment of market gardens on the outskirts of towns, and gardeners' associations. In 1920 there were 33 local associations with 2,784 members and 26 federations with 9,197 members. The returns in respect of these are not complete.

Co-operative Alpine Pasture Societies. — Semi-official bodies were included in the second enquiry. This part of the enquiry is admittedly incomplete. In the alpine districts there are communes where there were a large number of co-operative alpine pasture societies which are not included in the returns. In 1920 there were 344 co-operative alpine pasture societies with 15,456 members as compared with 227 societies in 1910 with 7,471 members. Only 20 per cent. of these societies are registered in the Commercial Register. In 1920 we find, between federations and semi-official bodies, seven societies in all with 29 sections and 12,576 members.

Co-operative Forestry Societies. — In the enquiry of 1920 there have been also included the semi-official bodies administered by the local authorities that were on the contrary excluded in making the first enquiry. But not all such bodies have been reported on. Further it is not always easy to establish a clear distinction between woods belonging to the communes and woods belonging to the co-operative societies. In 1920 there were 83 co-operative forestry societies with 4,910 members. The greater number of these societies were in the Canton of Zurich. Many of them are of long standing. Seven societies are registered in the Commercial Register; 29 are grouped in federations. The three existing federations are of recent date (1919-21).

Co-operative Land Improvement Societies. — These societies have developed in a remarkable way. From 1910 onwards 123 new societies were formed. The total number rose from 68 to 191, an increase of 180 per cent. The number of members rose from 3,482 to 11,060. Many of these co-operative societies merely undertake to carry out one single piece of land improvement of public interest. On that account they often exist only for a limited time. Others however provide for the general direction of land improvements, such as irrigation, and thus are of a more permanent character. The greater number of these societies are found in the cantons of Zurich, Berne and Vaud. Only 15 per cent. are registered in the Commercial Register; seven are grouped in federations. In 1918 the Swiss Association for the Promotion of Workmen's Holdings and Home Colonization was formed. Its headquarters are at Zurich, and its activities are principally devoted to lands requiring improvement. It was founded in view of the efforts that were made to restore national production with all possible speed in anticipation of the prolonged duration of the War and of serious difficulties in the food supply. According to its rules the aims of the association are the intensification of the cultivation of the soil on the part of those whose occupation was not agriculture so as to reinforce and supplement the productive activity of the regular cultivators, apart from any speculative objects, and the systematic development of home colonization. It is a public utility society. It is not easy to make a precise statement as to the number of members as the association includes organizations, business undertakings and individual members.

In 1919 the Swiss Federation for Land Improvement was formed with headquarters at Berne. The aim it places before itself is that of watching over the interests of its members, and in conjunction with the competent authorities of promoting land improvement in the public interest. In particular its object is to acquire building material, tools and the means of transport indispensable to the execution of improvements, as also the machinery required for the cultivation of reclaimed lands; it also organizes the placing of labour. The number of the members in this case too is not easily ascertainable.

Co-operative Agricultural Machinery Societies. — These are not mentioned in the first enquiry, although some of them were in existence before 1910. The majority are of recent formation. Some originated with the

introducing of electric undertakings. Some make arrangements for the joint use of tractors. The recent enquiry reports 19 co-operative societies with 609 members. Of these eight are registered in the Commercial Register and only two belong to federations.

Co-operative Threshing Societies. — The number of co-operative threshing societies has more than doubled since 1910, rising from 133 to 270, a fact explained by the extension of cereal cultivation. The number of the members has risen from 3,946 to 9,814, an increase of 5,868 or 144 per cent. Of these societies 215 or 80 per cent. are registered in the Commercial Register; 15 belong to the Federation of Co-operative Threshing Societies of North-West Switzerland and of Private Owners of Threshing Machines, a federation founded in 1919. The object of the Federation is the joint purchase of coal, oils and grease and the organization of courses of instruction for drivers and attendants of machines. This federation is spread throughout the cantons of Berne, Fribourg, and Solothurn.

Co-operative Mills. — From 1910 onwards 10 co-operative mills were set up. It is however obvious that the number of societies dissolved must be relatively considerable since in 1920 there were only 41 co-operative mills, that is 2 more than in 1910. The number of members rose from 6,059 to 7,119, an increase of 1,060, or 17 per cent. The greater number of these societies are found in the cantons of Vaud (26), Fribourg (5) and Neuchâtel (3); in the rest of Switzerland there are only a few here and there. In some places the co-operative bakeries run mills. Of the co-operative mills 85 per cent. are registered in the Commercial Register; 25 co-operative societies of Western Switzerland, as also some co-operative bakeries of French Switzerland are affiliated to the Swiss Union of Agricultural Mills formed in 1913. The object of the Union, which includes 38 co-operative societies and 5,000 members, is to promote the cultivation and storing of cereals, as agreed with the Swiss Government, to consolidate the co-operative movement and to ensure the carrying out of measures for the attainment of common ends.

Co-operative Bakeries. — In the first enquiry three such co-operative societies appeared; in 1920 the number had become 16, nine of which had been formed after 1910. These returns are not complete because in the Alpine region there are other associations for the working of bakeries in common. In the majority of cases, each member sees to the baking of his own bread, and frequently there is no systematic organization. These societies had a total membership of 1,988. Seventy-five per cent. of the societies are registered in the Commercial Register. Only ten societies have their own bakehouses. Some of the societies are connected with private bakeries.

Co-operative Slaughter-houses. — There are only two societies of this kind; one at Berne and the other in the canton of Vaud. The two societies together contain 152 members.

Co-operative Credit Societies. — The number of these societies rose from 139 in 1910 to 266 in 1920 being an increase of 127, or 91 per cent. The enquiry does not cover a certain number of local loan banks. The

number of members rose from 10,024 to 20,758, that is it increased by 107 per cent. The majority of these societies are in the cantons of St. Gall (51), Vaud (40), Fribourg and Solothurn (35 each), Aargau (32), Valais (29). Many parts of Switzerland such as Zurich, Berne, Lucerne, Ticino, etc., have as yet no co-operative credit societies or only very few such societies. Of these societies, 219 were registered in the Commercial Register; 240 were grouped in federations. Four cantonal and intercantonal credit organizations are in existence: the Swiss Federation of Loan Banks (formed in 1902) with 18,960 members; the St. Gall Cantonal Federation of Co-operative Credit Societies (formed in 1908), with 4,780 members; the Vaud Federation of Co-operative Credit Banks (formed in 1911) with 2,400 members and the Aargau Federation of Raiffeisen Banks formed in 1913.

Live-stock Banks. — The number of public banks for making loans on the security of live-stock keeps diminishing; they have decreased from 40 to 18 and are perhaps destined to disappear. In their place local co-operative loan societies are being formed. Of the 18 live stock loan banks 14 were in the Canton of Thurgau (403 members) and four were in that of Zurich (346 members).

Insurance Societies. — Live stock insurance societies based on the principle of mutuality, though not included in the first enquiry, were included in the second. In most of the cantons live stock insurance has been organized with the assistance of the State, which promotes societies and regulates their activity, giving them subsidies and legal assistance. Some of these societies have become official bodies. In 1920 there were 1,919 local cattle insurance societies with 128,785 members; 127 goat insurance societies with 4,352 members; 45 horse insurance societies with 17,133 members and 10 pig insurance societies with 2,101 members. In all there were 2,101 local live stock insurance societies with 150,924 members. From the Report of the Swiss Department of Public Economy it appears that in the 17 cantons subsidized by the State 772,174 animals were insured in 1919; 20,835 animals died and compensation was paid in respect of them to the amount of 5,396,795 francs. Of the cantonal and intercantonal federations for the insurance of live stock in 1920, three were for the insurance of cattle (one of which, the Basle-Country Federation of Live Stock Insurance Societies, was formed in 1920), nine for the insurance of horses and two for the insurance of pigs, to which must be added the Neuchâtel Cantonal Society for Compulsory Mutual Insurance against Bee-disease.

There were two hail insurance societies, as in 1910, both of them of long standing, having been formed in 1875 and 1880 respectively. Their membership rose from 59,162 in 1910 to 84,916 in 1920.

The following table contains a summary of the statistics collected in the course of the enquiry. It shows the number of co-operative societies, the number of federations and the number of members in 1910 and 1920.

TABLE II. — *Co-operative Societies, Federations and Members in 1910 and 1920.*

TABLE II. Co-operative Societies in Switzerland.										
Types of Co-operative Societies	Co-operative Societies				Cantonal and Inter-cantonal Federations					
	1910		1920		Number of Federations	1910		1920		
	Number of Societies	Number of Members	Number of Societies	Number of Members		Number of Federations	Number of Members			
Agricultural Co-operative Societies properly so-called	557	48,469	772	80,192	10	57,259	13	235,84		
Dairy and Cheese-making Societies	2,785	77,227	3,319	102,677	17	61,825	54	264,982		
Dairy Associations	17	1,419	—	—	—	—	—	—		
Co-operative Cattle-breeding Societies	913	28,434	1,217	40,828	11	23,395	19	37,351		
Horse-breeding	44	3,821	50	7,575	9	3,784	15	3,519		
Goat-breeding	220	6,265	558	11,371	10	9,875	11	18,541		
Sheep-breeding	38	613	52	1,464	—	—	3	91		
Pig-breeding	43	1,217	82	2,025	—	—	9	1,132		
Silk worm-rearing Societies	—	—	—	—	—	—	1	82		
Co-operative Societies for the Growing and Sale of Fruit	68	3,618	117	10,276	12	5,678	10	7,382		
Co-operative Vine-growers' Societies	50	2,744	49	3,257	7	2,342	5	2,824		
Co-operative Distilleries	53	974	52	1,278	—	—	1	820		
Miscellaneous Co-operative Societies	15	1,874	10	731	—	—	12	1,176		
Co-operative Gardening Societies	—	—	33	2,784	—	—	26	9,107		
Co-operative Alpine Pasture Societies	227	7,471	344	15,310	6	3,096	7	12,576		
Co-operative Forestry Societies	71	4,010	83	4,010	—	—	3	255		
Co-operative Land-improvement Societies	—	—	11	11,060	—	—	(1)	—		
Co-operative Agricultural Machinery Societies	133	3,946	19	693	—	—	—	—		
Co-operative Thrashing Societies	39	6,059	41	9,814	—	—	(1)	—		
Mills	3	388	16	1,688	—	—	1	5,000		
Bakeries	—	—	2	152	—	—	—	—		
Slaughter houses	139	10,024	206	20,758	1	8,155	4	26,112		
Credit Societies	5	457	18	749	—	—	—	—		
Live-Stock Loan Banks	—	—	1,910	128,785	—	—	3	1,935		
Societies for Mutual Insurance of Cattle	—	—	127	4,452	—	—	—	—		
Societies for Mutual Insurance of Goats	—	—	45	17,133	8	6,815	9	9,544		
Societies for Mutual Insurance of Horses	31	7,174	10	654	—	—	2	150		
Societies for Mutual Insurance of Pigeons	—	—	—	—	—	—	1	245		
Societies for Mutual Insurance against Adversity in Sittings of Eggs	—	—	—	—	—	—	2	84,916		
Fire Insurance Societies	—	—	—	—	2	59,102	2	666,426		
Total	5,458	218,152	5,674	488,790	93	241,326	226	666,426		

(1) The number of members is not given because the federations include, besides individual members, co-operative societies, corporate bodies and communal bodies.

(1) The number of members is not given because the federations include, besides individual members, co-operative societies, corporate bodies and communal bodies.

As may be seen from the table, the dairies and cheese-making societies occupy the first place with 2,785 societies in 1910 and 3,519 in 1920. They represent more than one third of all the agricultural co-operative societies, showing how the dairy industry has acquired a predominant position in Swiss agricultural economy. The second place is occupied by the societies for the mutual insurance of cattle, horses, goats and pigs, the number of which rose from 31 in 1910 to 2,101 in 1920. This increase may seem extraordinarily large. As a matter of fact, however, there were already many live stock insurance societies in existence in 1910, but they were not, as we have seen, included in the first enquiry for the reason that they are almost official bodies. The third place is occupied by the co-operative societies for the breeding of cattle, horses, goats, sheep and pigs, which numbered 1,263 in 1910 and 1,765 in 1920. Next come the agricultural co-operative societies properly so-called (772 in 1920), the co-operative alpine pasture societies (344), the co-operative threshing societies (270), the co-operative credit societies (266), the co-operative land improvement societies (the number of which increased considerably, rising from 73 in 1910 to 191 in 1920), the co-operative societies for the cultivation and sale of fruit (117), etc. In the aggregate, the number of co-operative societies rose between 1910 and 1920 from 5,458 to 9,074, an increase of 4,216 societies, while the number of members was more than doubled, rising from 218,512 to 488,790. In the same period the number of cantonal and intercantonal federations increased from 93 to 227 and the number of their members from 241,326 to 666,426.

§ 3. PEASANTS' POLITICAL ASSOCIATIONS.

Since the first enquiry of 1910 peasants' political associations have been formed in various cantons. Some of these are organized in independent peasants' parties and others in independent agricultural and middle-class parties. These cantonal organizations are based on local associations, which numbered 319 and contained 53,051 members. By far the larger number of these associations (288) are found in the canton of Berne; in Aargau there are 32; in Zurich, 20, etc. None of these societies are registered in the Commercial Register; all are grouped in federations.

The cantonal peasants' parties are five in number: the Peasants' Party of the Canton of Zurich, founded in 1917; the Agricultural Industrial and Middle Class Party of Berne, founded in 1917; the Peasants' Political Association of the Canton of St. Gall, founded in 1919; the Agricultural and Middle Class Party of Aargau, founded in 1920, and the Agricultural Party of Ticino, founded in the same year (1). The cantonal peasants' parties are often composed not only of local political branches, but also of local and regional agricultural associations which have adhered to the cantonal party. It is difficult to determine the precise number of members,

(1) The Cantonal Agricultural Association and the Peasant's Party of Schaffhausen were included above (§ 1) amongst the cantonal agricultural associations.

since the organizations are still in the initial stages of their development. The total number of members is approximately 73,787.

The cantonal peasants' parties are not combined in an intercantonal association. It is feared, not without reason, that if such an association were formed it would be a duplicate of the Swiss Peasants' Union, formed as early as 1897, and that this duplication might lead to a weakening of the unity and solidarity in the policy of the Swiss peasants. The Swiss Peasants Union showed a considerable increase in the 10 years under review; in 1910 it had 24 branches containing 144,377 members, while in 1920 there were 47 branches with 331,474 members.

In the Federal Chamber the peasants are represented by the section of the Agricultural, Industrial and Middle Class Party which, in concert with the Agricultural Club, defends the interests of agriculture. This section, which at the end of 1920 included 32 members, forms the connecting link between the cantonal peasants' political associations. The Agricultural Club which contained 84 members in 1920 includes members of all the middle-class parties of the Federal Chamber. It concerns itself only with economic problems and deliberately avoids taking up any particular attitude in regard to purely political questions.

* * *

To resume, we give a general glance at all the statistics reproduced above.

In Switzerland in 1920 there were 1,055 Associations with 484,482 members, whereas in 1910 there were 856 with 266,876 members. The increase in the number of associations was 199 and in the membership 217,606. As we have already noted, the aggregate number of members is larger than that of the persons who belonged to the association, since each person may be counted more than once.

The co-operative societies numbered 9,900 in 1920 with 1,155,216 members as compared with 5,551 in 1910, with 459,478 members, an increase of 4,349 societies and 695,738 members. And lastly, the peasants' political associations numbered 355 in 1920 with 458,312 members, as compared with a single such association in 1910, the Swiss Peasants' Union, with 331,474 members. The increase is 354 associations and 126,838 members. The aggregate number of co-operative societies and of peasants' political associations is thus 11,310 in 1920 with 2,098,010 members, while in 1910 it was 6,408 with 870,371 members. The aggregate increase was thus 4,902 associations and co-operative societies and 1,227,279 members. Even though all these associations have not been formed in the decade between 1910 and 1920, since some of them already existed in 1910, the figure showing the increase, though slightly diminished, is still very large and is an important indication of the progress made by the agricultural associations and agricultural co-operative societies formed to further the well-being of the Swiss rural population.

Miscellaneous Questions relating to Agricultural Economy

ECONOMIC AND SOCIAL CONDITIONS OF THE AGRICULTURAL CLASSES

GERMANY.

THE MAINTENANCE OF THE AGRICULTURAL LABOUR SUPPLY DURING THE WAR.

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§ 1. THE SUPPLY OF AGRICULTURAL LABOUR BEFORE THE WAR.

On the outbreak of War, German agriculture found itself confronted with an almost insoluble problem. The supplies of food stuffs and fodder from abroad being cut off, and the country reduced to reckoning practically exclusively on its own production, the possibility of arranging for supplies of labour to meet the requirements of agriculture represented a vital question not only for agriculture itself, but for the whole nation. This was a doubly difficult task, seeing that German agriculture already before the War suffered from a deficiency of labour, and moreover had to furnish a considerable part of the contingents necessary for war.

Even before the War the need for labour was being increasingly felt in German agriculture; the great development of intensive culture made the demand for labour more and more pressing. With the decrease in the waste lands, not only was the area sown annually increased, but this latter had to be tilled with greater care and diligence. There was a development of intensive cultivation of root crops and of tubers. Stock-breeding, requiring as it does so much hard work and attention, took on more importance in proportion to the increase in field fodder crops; indeed, it in-

creased in even larger proportion since fodder from abroad was bought and used in large quantities (1).

The circumstance that rendered it even more difficult to obtain the necessary labour for farms with intensive cultivation was that these farms were much affected by the great seasonal fluctuations in the demand for labour. The greatest differences between the quantity of labour in summer and winter were to be found on the large estates that cultivated sugar beet. As an illustration of this, we may reproduce calculations that were worked out for two farms with different degrees of intensity of cultivation (2). The figures relate to the labour required for 100 hectares (over a space of three years), expressed in so many days' work of seasonal labour:

	Sugar-beet farm	Pasture land
April	549	129
May	663	123
June	657	141
July	597	191
August	647	209
September	541	131
October	568	153
November	383	88
December	221	80
January	272	76
February	211	66
March	322	86

The great beet farms thus found it the most convenient plan to send away in the winter months all the labourers whom they could not utilize in a permanent way, and on account of this practice they made large use of migratory labour.

(1) DETTWILFER (*Die Handarbeit in der Landwirtschaft*, Jena, 1905) has calculated the amount of labour required for a series of systems of cultivation, according to their varying degrees of intensity, and, amongst other results, estimates that for every 100 hectares the following number of months of work is necessary:

on farms with a large extent of permanent pasture and fallow, 78;

on farms with a large extent of cultivation of forage crops, 96;

on farms with an area of from 10 to 20 per cent. under intensive cultivation, without sugar beet, 97.

on farms with an area of more than 20 per cent. under intensive cultivation, without sugar beet, 110;

on farms, with cultivation of sugar beet for not more than five per cent. of the whole area, 110;

on farms, with intensive cultivation of all kinds covering most of the extent, 172.

on farms with more than 20 per cent. of cultivation of sugar-beet, 173 to 209;

In passing from extensive pasture cultivation to the cultivation of the sugar-beet on a large scale the requirements as to labour are thus practically trebled.

(2) LANGEBRÜCK (G.): *Buchführungsergebnisse aus der Buchstelle der Deutschen Landwirtschaftsgesellschaft*. Berlin, 1911.

It happened besides that during that period of more intensive utilization of the soil, new lands were brought under the plough, and thus there was an absolute increase in the area cultivated. According to Conrad, in the provinces of Old Prussia, the arable and market garden land amounted to 9.87 million hectares in 1802 and to 15.68 million hectares in 1900. Even supposing this last figure to be an exaggerated estimate, the increase in cultivated land was however sufficiently large to create a greater demand for labour for that reason also.

As is well known, Germany is mainly a country of owners cultivating their own land. It is also known that there exists a ratio between the employment of labour and the area of the farms in the sense that the smaller the farms are, the more, relatively speaking, labour do they usually employ. A glance at the German census of occupations in 1907 is enough to confirm this. For every 100 hectares of area utilized for agriculture there were in fact :

Area of farms	Total of persons engaged in agriculture	Number of these permanently employed
under 0.5 hectares	560	238
from 0.5 to 2 hectares	171	94
" 2 " 5 "	88	63
" 5 " 20 "	44	34
" 20 " 100 "	22	17
100 hectares and over	18	12

The difference is one that is evident. It is true that it is not in reality as marked as appears, in so far as the figures do not indicate to what extent the labour employed is actually utilized. Among the holdings of smallest area there are many which only represent a subsidiary occupation for persons who have a different chief occupation. Besides, the smaller the holdings, the more usual it is for members of the family to be employed in them, such persons taking part in the work only on a temporary and occasional footing, more particularly women, whose work, regarded as output, is not equivalent to men's. It however always remains true that the employment of labour increases the smaller the holding is. And this is so not only because the small farm makes less use of machines and utilizes its labour less economically, but also because on the small farm preference is given to the branches of agriculture that are more intensive in character. Thus the small farm is often given up to stock-breeding, which needs a great deal of labour. In 1907 more than two-thirds of the pigs, besides half of the cattle, and four-fifths of the poultry, belonged to the farms of an area of not more than 20 hectares. The same may be said of the cultivation of vegetables and fruit, which greatly predominates on small and medium sized farms.

The demand for labour for German agriculture was therefore continually on the increase. There was not, however, a corresponding increase in the rural population, which indeed in the last ten years before the War had decreased in a way that could not but give rise to anxiety.

"From one census of occupations to another, that is from 1882 to 1895 and from 1895 to 1907, there was each time a diminution of about 900,000 persons. Whereas in 1882 there were returned as professionally engaged in agriculture 18.7 millions of persons, in 1907 there were not more than 16.9 millions. The agricultural population, in the 25 years that elapsed between the first and the last census of occupations, was literally decimated, having lost approximately one-tenth of its total" (1).

However this may be, German agriculture succeeded in obtaining a larger amount of labour, since though the agricultural population diminished the labourers increased in number.

	1882 millions	1895 millions	1907 millions
Labourers, exclusive of the family	6.13	6.15	5.70
Members of the family whose main occupation consists in helping in the farm-work	1.94	1.90	3.88
Other members of the family . .	10.23	9.42	7.19
Servants	0.41	0.36	0.15
Total number of persons belonging to agriculture	18.70	17.82	16.92

The number of persons who were engaged in farm work went up in the period under consideration from eight millions to more than nine and a half millions. Whence came the million and a half of fresh supplies of labour? The data furnished above show that the members of the farming families whose main occupation is that of helping in the farm work had increased by nearly two millions. If the real increase has not been as large as it seems, it being understood that in the 1907 census the employment of members of the farmer's family in the work of the farm was returned with more strict precision than in former years, it seems to result with some degree of certainty that recourse was had to more help from members of the family as the supply of outside labour fell off. In these circumstances the advantages of an agricultural organization based on occupying ownership becomes evident; there was to be found in the family circles in the peasants' holdings a reserve supply of labour of the greatest possible value. It was for the most part women, and also boys and old men, who took the places of the men who were no longer forthcoming (2). On the whole the actual working power of the labour supplies could not

(1) *Statistik: Die Deutsche Landwirtschaft*, Drawn up in the Imperial Statistical Bureau, Berlin, 1913. This valuable publication has been made use of in other passages.

(2) In the year 1907, for every 100 persons whose main occupation was of one sort, there were:

	in industry	in agriculture
up to the age of 20	21.1	22.0
from 20 to 40	51.2	37.6
over 40 years	27.7	40.4

have gained much. That it was sufficient is shown by the fact that the development of agriculture was not arrested.

The larger farms were in a less favourable position, inasmuch as they did not possess this reserve of labour, but they reaped some advantage from the fact that the influx of temporary labour was on the increase, as we shall have occasion to note. They had besides recourse in a very large measure to the use of agricultural machines. Even if the figures relating to these can only be regarded as reliable to a limited extent, the statistics of farming undertakings give an idea of the rapid development of the employment of machinery in German agriculture. The number of farms that used machinery was as follows :

	1882	1895	1907
Steam ploughs.	836	1,696	2,995
Steam threshers	75,690	259,364	488,857
Other threshers	298,367	596,869	947,003
Seed-drills.	63,842	169,465	290,039
Reapers	19,634	35,084	301,325

The large farms, moreover, utilized machinery, not only because they had large stretches of fields to deal with, and that is an essential postulate for the employment of machinery, but also they were in a position to make full use of the capital invested in the machines themselves. And if mechanical labour was not always more economical and more satisfactory than manual labour, nevertheless for the owners of large farms it was a great advantage to possess an instrument of work which at periods when work has accumulated can be relied on to work rapidly. That was an advantage which justified a high initial cost. According to the farm statistics of 1907 there were of farms employing machines :

Farms	Total number	Percentage
under 0.5 hectares.	18,500	0.9
0.5 to 2 hectares	115,000	8.9
2 to 5 hectares	325,700	32.4
5 to 20 hectares.	772,500	72.5
20 to 100 hectares.	243,400	92.8
over 100 hectares	23,000	97.4

It is clear that on the large farms there were few farmers who did not employ any machines. The farm undertakings too of the large owners who cultivate their own land were nearly all given over to tillage by machinery. The figures quoted are confined to stating whether machines were employed on farms of the respective categories, but give no information as to the extent to which they are employed. This is of course much

greater on the large than on the small farms. On the large farms the various tractors and machines are to be found side by side, while on the small farms the farm work done by machinery is not infrequently limited to the threshing of cereals by hired threshing machines.

A significant feature of the way German agricultural labour is organized is the important part taken by the members of the farmer's family, especially by the women, and also the carrying on of farming as a subsidiary occupation.

The census of farms in 1907, which registered the position as to farm-hands as it stood on the day it was taken (12 June), gave the following results:

	Number of persons in thousands		
	Total	Men	Women
1. Farmers and managers of farms	2,929	2,526	403
2. Members of the family	7,692	1,908	5,784
(a) taking part in the work permanently	4,680	1,212	3,462
(b) giving temporary help	3,012	690	2,322
3. Ordinary staff	4,548	2,414	2,134
(a) Farm accountants and foremen . . .	77	64	13
(b) Labourers employed permanently:			
1. Servants	1,546	811	735
2. Day-labourers, manual workers, etc.	883	554	329
(c) Temporary labour	2,042	985	1,057
Total . . .	15,170	6,848	8,321
Percentage . . .	100	45.1	54.9

This number amounting to more than 15 million people employed on the day the census was taken may seem very high, considering that all the agricultural population, including the children, did not amount to 17 million persons. But the number must not on that account be taken as erroneous. It was thus proved that there was more increase in agricultural labour than in the general mass of the agricultural population properly so-called, since agriculture had become an accessory occupation to an unparalleled extent.

In fact, the 15 million people could not be considered as being all of full working capacity. The majority (55 per cent.) were females, and among them there must have been many women belonging to industrial occupations, since the female agricultural population could not supply so many pairs of hands. Besides from the figures given above it appears that of the total labour supplies seven-tenths consisted of the farmers and their families, while the outside labour represented only three-tenths.

The smaller the farms, the less were outside persons employed in work-

of the agricultural labour in the State of Baden where small peasant holdings are frequent in comparison with that of the Province of East Prussia such as Posen where the system of large holdings is widely spread. In Baden more than four fifths of the labour is supplied by members of the family. The relatively most numerous group of paid labourers is made up of servants (*Gesinde*) reckoned at about 11 per cent. The other three groups of paid labourers figure on the other hand with an exceedingly small percentage. Very different is the situation presented by Posen. The number of the members of the farming families who take part in the work is only half what it is in Baden while practically half the supplies of labour occupied in agriculture is made up of paid day labourers.

TABLE I *Classification of Agricultural Labourers of Both Sexes according to the Census of Occupations taken in 1907*

States, Provinces, etc.	Members of the family occupied in the cultivation of the land (including the household)		Servants		Workmen and day labourers who cultivate the land or rent land and cultivate it either in kind		Workmen and day labourers who do not cultivate the land	
	o	%	o	%	o	%	o	%
Germany	9,883,031	55.0	1,597,717	11.5	59,300	3.7	5,631	3.5
East Prussia	1,175,370	75.0	75,000	16.4	0	0	41,045	11.7
West Prussia	1,130,133	73.3	35,301	1.1	10,508	3.6	27,396	9.5
Posen	1,108,115	71.5	10,000	1.0	10,000	7.7	38,000	9.6
Silesia	1,100,000	71.0	1,000,000	1.0	1,000,000	1.0	1,000,000	1.0
Pomerania	1,100,000	71.0	1,000,000	1.0	1,000,000	1.0	1,000,000	1.0
Brandenburg	1,100,000	71.0	1,000,000	1.0	1,000,000	1.0	1,000,000	1.0
Province of Saxony	1,100,000	71.0	1,000,000	1.0	1,000,000	1.0	1,000,000	1.0
Hanover	1,100,000	71.0	1,000,000	1.0	1,000,000	1.0	1,000,000	1.0
Schleswig-Holstein	1,100,000	71.0	1,000,000	1.0	1,000,000	1.0	1,000,000	1.0
Westphalia	1,100,000	71.0	1,000,000	1.0	1,000,000	1.0	1,000,000	1.0
Rhine Province	1,100,000	71.0	1,000,000	1.0	1,000,000	1.0	1,000,000	1.0
Hesse-Nassau	1,100,000	71.0	1,000,000	1.0	1,000,000	1.0	1,000,000	1.0
Alexanderine	1,100,000	71.0	1,000,000	1.0	1,000,000	1.0	1,000,000	1.0
Baden	1,100,000	71.0	1,000,000	1.0	1,000,000	1.0	1,000,000	1.0
Württemberg	1,100,000	71.0	1,000,000	1.0	1,000,000	1.0	1,000,000	1.0
Bavaria	1,100,000	71.0	1,000,000	1.0	1,000,000	1.0	1,000,000	1.0

But the growing extent to which help is given in farm-work by members of the family is not to be reckoned only in quantity, its quality must also be taken into consideration. A considerable proportion of these family helpers aid in the work only temporarily and besides there are among them in addition to women also boys and old men who are wont to assist only at periods of times of work. The extra assistance was however very valuable for the small farms and became even more so when the War took

away the greater number of the men. The small farms were also affected particularly seriously, as we shall see, by the call to the colours of the farmer, who was in many cases the only able-bodied male labourer on the farm.

The paid labourers engaged in agriculture in Germany constituted almost 30 per cent. of the labour, but the importance of their work was much greater than what it would seem on the basis of this percentage, since they were as a rule labourers who were, whether men or women, in their full vigour. They did not constitute a single professional class, but there was a whole series of classes of labourers, distinguished according to the nature of the hiring agreement, and of the special duties that fell to them. Apart from local peculiarities, the four fundamental groups may be distinguished.

1. Farm servants (*Gesinde*);
2. Day-labourers engaged on a hiring agreement (*Gutstägeloohner*);
3. Free labourers (*Freie Landarbeiter*);
4. Migratory labourers (*Wanderarbeiter*).

Farm servants, male and female (*Gesinde*), constituted the main body of paid agricultural labour. They were bound to the farm in a stricter way than the others. They had to be at every moment at the disposal of the master for all the daily tasks, especially for the care of the animals. Accordingly they lived in the house, were provided with food, and in the smaller farms were treated as members of the family. The hiring agreement was for a long period, and usually the servants were paid a yearly wage. Thus we had still a markedly patriarchal relation of employer to employed. To this there corresponded the fact that the majority of the farm servants were unmarried (96 per cent.) and young (86 per cent. being under 30 years of age). On the more extensive farms there were also married domestics for the stable work who instead of daily meals received a remuneration in kind and who had their own household (*Deputatgesinde*).

Even on the smaller farms it was difficult to do without this labour supply bound to the farm, and if a farmer as a rule employed outside permanent labour, he tried above all to have one man and one maid servant. It was particularly the small holdings farmed by the owners on which servants were kept. Out of a million and a half male and female servants, in round figures, enumerated in the census of 1907, four-fifths were in service with farmers cultivating their own land (on farms of from five to 100 hectares).

Farms	Farm servants		Total
	Male thousands	Female thousands	
under 0.5 hectares	4.3	19.6	23.9
from 0.5 to 2 hectares	12.1	27.2	39.3
" 2 " 5 "	33.0	59.4	92.3
" 5 " 20 "	254.2	281.9	536.1
" 20 " 100 "	359.5	278.8	638.3
over 100 hectares	147.7	68.3	216.0
Total	810.8	735.2	1,545.9

From this it is seen that the problem of farm servants constituted the real problem of labour for the peasant holdings. And thus the ever growing difficulty of procuring farm servants represented a particularly serious obstacle to the management of these holdings, especially of the larger ones which could not remedy the defect in the same way as the smaller by recourse to the labour of members of the family. The fact that domestic service has become unacceptable is due to the general spirit of the age. The desire for greater independence led the young men to shake off the restraint imposed by the fact of living under the master's roof and of the perpetual oversight, and to try to find an occupation promising more liberty. And so the number of farm servants steadily fell. The census of occupations in 1907 showed, in comparison with that of 1885, a decrease of 361,000 male servants and of 26,000 female servants. Although the decrease was much larger in the male servants, it was the short supply of female servants that was most felt, since the former could be more easily replaced by married people. However the number of servants of both sexes was always very large. They represented, according to the farm statistics of 1907, 10.2 per cent. of all the labour employed in agriculture. Excluding the farmer and his family, the percentage amounted to 34 per cent. of all the outside labour (1).

Paid labourers engaged on a hiring agreement constituted the basis of the permanent labour on the large holdings, and for that reason they are often called *Gutstagelöhner*. Of the nearly 900,000 labourers of this class enumerated in the farm census of 1907, sixty per cent. worked on large farms and 21 per cent. on large estates cultivated by the owners.

Farms	Men thousands	Women thousands	Total thousands
under 0.5 hectares	8.9	4.2	13.2
from 0.5 to 2 hectares	16.9	8.5	25.2
" 2 " 5 " 	23.6	12.3	35.2
" 5 " 20 " 	60.4	30.9	91.3
" 20 " 100 " 	121.2	62.5	183.7
over 100 hectares	322.9	210.4	533.2
Total	553.9	328.9	882.7

As in the case of farm servants, the hiring agreement is for a long period and the pay is made up to a great extent of allowances in kind, called *Deputat*, for which reason these labourers are also called *Deputaten*. The

(1) " Among the farm servants, 36,500 were returned as of foreign birth. This is a proof that foreigners were already being taken on as servants and thereby being brought into intimate relations with the farm owners. Moreover the home born servant already experienced the desire to change his abode; already 111,600 men and maid servants were in employment away from their native province " (SIEBERT).

nature and amount of these payments in kind vary according to the locality and the farm. In some localities they are such that the labourer can himself farm a small holding. They consist in fact of a house for the family with a small outhouse and land to farm on his own account, together with produce for consumption and for feeding stock. The wages paid in money had in comparison a minor importance. According to the 1907 census of occupations, there were 237,000 day-labourers with land granted to them by landowners in order that they might till it on their own account (*Deputatland*). This number is not very large in comparison with the total number of *Gutstagelohner*, but it should be remarked that the labourers engaged by this form of hiring contract must employ an assistant in their work (the so-called *Hofganger* or *Scharwerker*) and that their wives must give their help in the event of stress of work. In the cases, which were the most numerous, in which the day-labourers did not receive a piece of land, but only, besides the house, produce for their own consumption, such as potatoes, corn, vegetables, milk, etc., there was paid to them a money wage proportionately higher.

For the form of remuneration various combinations were possible and these may have had a decisive importance for the social and economic position of the labourer. A *Gutstagelohner* who may receive land and allowances sufficient to make him the possessor of a small holding, perhaps even able to keep cows, found himself in a much stronger economic position than the labourer in whose case the allowances were merely supplementary to his money wage. For the former there was a much more intimate sharing of the interests of the landowner than for the latter; and the first too had stronger ties to the farm while as a worker he was more to be depended on. On the other hand, a *Gutstagelohner*, whose time was not taken up by the work of his own holding, could put entirely at the disposal of the owner of the farm his own and his family's assistance. This advantage was enough to induce owners to limit more and more the payments in kind. It was a shortsighted policy, because in this way the wage-earners lost the incentive which kept them attached to the soil of the farm, and more readily felt a desire to leave it.

The large class of "free labourers" included the whole of the farm labourers not bound by agreement, a group, that is, in which the only likeness between its members lay in the fact that none of them could show a formal hiring agreement. Here were represented all the social grades of the so-called "small folk" living on the land: the landless agricultural proletariat who found a somewhat miserable subsistence as *Einlieger*, or as *Einmieter*, went to work now here, now there, as the case might be, along with the paid labourer who had a small holding either of his own or rented, but as a regular thing, of his own free choice, worked for a small farmer or a landowner, up to the rank of a partly independent small occupying owner, who not having his whole time taken up by the work of his own holding sometimes worked for other people either by the day or by the job. Labourers of this kind were of course not to be found everywhere, but naturally chiefly in the regions where there was a dense popu-

lation of small farmers. In Southern and Western Germany they constituted, along with the farm-servants, the main part of the outside farm help.

Farms of all sizes employed them equally. The small peasant holder, who employed hardly any labour beyond that of his family and his servant, was glad to turn to the "free labourers" for help in times of stress of work. This is clear from the statistical returns, although the "free labourers" are not shown separately, but are included under the heading "temporary labour" along with the migratory labour. According to the 1907 farm census, there was the following number of "temporary labourers":

Farms	Men	Women	Total
	thousands	thousands	thousands
Under 0.5 hectares	74.0	74.8	148.8
From 0.5 to 2 hectares	124.9	122.1	247.0
" 2 " 5 " 	140.1	140.3	280.4
" 5 " 20 " 	272.3	293.3	565.5
" 20 " 100 " 	188.5	212.6	401.1
Over 100 hectares	185.1	214.2	399.3
Total	984.9	1,057.2	2,042.1

From these figures there should be subtracted the migratory labour. According to the census of occupations taken in 1907 the seasonal labour coming in from other countries amounted to 215,000 persons. For the seasonal labour that was German separate statistics are not available: but there is an indication in the fact that, in this same year, it was noted that there were some 137,000 labourers and farm-hands who were working in a province other than their native province, and who possessed neither land of their own nor *Deputatland*: it may be presumed that amongst these the migratory labourers formed a considerable proportion. Since the seasonal labour was chiefly employed on the larger farms, what the above table shows is that the "free labourers" were mainly employed by the holdings of medium size cultivated by the owners. Here the number of free labourers approached that of the farm-servants, but the work they did had not, naturally, equal value, in so far as the former were employed only at certain periods, while the farm servants were engaged throughout the whole year. It happened, moreover, that industry was attracting a growing number of free labourers, particularly when they lived in proximity to a railway station, and the network of railways was becoming denser every year. It must, therefore, be concluded that the importance for field work of this class of labourer was on the decrease.

Thus, from whatever side we approach the question, we find always a diminution of labour. If, notwithstanding this, the situation has not reached the dimensions of a catastrophe, that is because the small farms could have recourse in a large measure to the labour of members of the

family, and the large farms were saved by the growing influx of foreign migratory labour.

The yearly influx of large gangs of labourers from Eastern Europe is among the most remarkable of the phenomena of the recent history of German agriculture, and has, not without reason, profoundly stirred public opinion in Germany. It was seen that German agriculture would be in a very difficult position, if it were obliged to rely for its furtherance on workers whose advent depended on the good will of foreign countries. Stress was constantly laid on the dangers that threatened the country at large from these masses of workers of another language and a lower cultural level. On the other hand it could not be ignored, though it was often overlooked, that the migratory labour temporarily supplied an absolutely indispensable requirement of German agriculture. Many causes combined to increase the need for migratory labour during the last twenty-five years of the nineteenth century. Above all in Germany, displaying as it did a rapid development of economic life in all directions, the labour supplies of the country itself were not adequate to the immense work to be done. Not only agriculture, but also industry, and the construction of roads, railways and canals, were requiring the work of labourers from abroad. But in the case of agriculture the need was even greater, both because as a consequence of the rural exodus to the towns there was a serious shortage of labour, and because, in view of the directions in which agricultural production was developing, the migratory labour was the most likely to fill to the best advantage the gaps so caused in the ranks of agricultural labour. The increasing tendency to intensive cultivation resulted in farm work being heaviest during the season when the weather is good. At the same time the winter work had become more restricted in consequence of the abolition of threshing with the flail, and of the giving up of a number of domestic industries formerly practised. Hence the need of labour was best met by labourers who, after completing the seasonal work, went away, so that the farmer was not at the charge of maintaining them during the winter. This system rendered agricultural production much more economical. There was in addition the circumstance that the intensive field work, particularly the cultivation of sugar-beet, imposed physical conditions of labour to which the migratory labourer, with fewer wants, submitted more readily than did the German farm labourer.

The first seasonal labourers who found their way to the Province of Saxony and to the neighbouring regions of Central Germany, where the cultivation of sugar-beet first began to be developed on a larger scale than formerly, were not foreigners. They came from the neighbouring provinces of Eastern Germany and were called, from the province to which they migrated, *Sachsengänger*, a name which was kept up even when for a long time they no longer went to Central Germany only, but had crossed first the Weser, and then the Rhine itself. Then followed foreign seasonal labourers, coming chiefly from the Slav countries of Eastern Europe.

Industrial development contributed largely to the increase of migratory labour, not only indirectly, by taking away labour supplies and thus

forcing agriculture to find foreign labour to replace that withdrawn, but also in a direct way. Out of 783,000 labourers from foreign countries registered in 1913-14, 437,000 belonged to agriculture and 346,000 to industry. In reality the number of the foreign seasonal workers was higher. The obligation to register did not hold good in all States of the Confederation. In Bavaria, in Hesse and in the Hanseatic towns this obligation is still non-existent; in Baden it has only existed since 1917 and in Saxony and in Württemberg it was only in force, up to 1920, to a limited extent. But even where there was the obligation, a not inconsiderable number of the foreigners succeeded in evading it.

The estimate that before the War there were about a million foreign seasonal workers should not be far from the truth.

The foreign farm labourers who had come into the country for a time only, registered in 1913-14, came:

From Russia	286,400
» Austria	130,600
» Hungary	5,300
» Holland and Belgium	9,600
» Denmark, Sweden and Norway	3,200
» Switzerland	1,500
» Other countries	100
Total	436,700

Amongst the countries from which the labourers came Russia and Austria-Hungary supplied by far the largest number; only 14,500, that is about three per cent., came from other States. As far as nationality is concerned, Poles came first, with a contingent of 327,200 persons (75 per cent.) Of these, 269,000 were Russian Poles, 58,200 Galician Poles. The number of Ruthenians (68,200) was also considerable.

The fact that the foreign seasonal labourers, coming from Eastern Europe, spoke a language which was not understood in Germany and were animated by political sentiments by no means friendly to the Germans, naturally often led to an unsatisfactory state of affairs. The employer could not deal directly with these men. Personal contact, which is essential to the creation of satisfactory relations in work, was practically impossible. The sole possibility of relations between the labourers and the employer was through foremen, the only ones among them who spoke German, who were accused of exploiting and cheating their compatriots in a most shameless way. Breaking of contracts and strikes at critical junctures not infrequently occurred.

It was on this account that accusations, sometimes unjustified, were brought against the Poles. There were certainly among them some undesirable elements, but for the most part they were people who had come of their own free will, who, dissatisfied with the low wages they could earn at home, used to work with great diligence in Germany and saved what

they could to buy a piece of land in their own country. Thus on the whole they were not a picked lot in a bad sense, but rather a selection of the more active, of those who were anxious to improve their position. No doubt they were on a lower cultural level. But if they had not been, would they have come into Germany to take up work which was too heavy for the German labourer?

§ 2. THE NUMBER OF THOSE CALLED UP.

In order to estimate the need for agricultural labour in Germany during the War, it is necessary to ascertain what was the proportion of those under obligation of military service who belonged to the agricultural classes, and what number were actually called up. To reply with any exactitude to this question it would be necessary to have at our disposal the records kept by the Army Command on the civil occupations of the men called up. On enquiry being made at the archives of the *Reich* it appears that there are no records of this kind in existence. It is thus necessary to arrive at a solution of the question by an indirect method.

My calculations are based chiefly on the total figures relating to the number of men called up, without taking any special count of the agricultural population.

Taking all the classes together of those under obligation to serve — that is to say the classes from 1869 to 1900 — there would be a total of 17,200,000 men (1).

The real figure is lower. There must be subtracted, in the first place, deaths between 1910 and 1914, and, in the second place, about half of the class younger than those born in 1900 and of the class older than those born in 1869, since the calling up of these two classes had not yet been completed when the War came to an end. It may be thus concluded that the total number of the persons compelled by their age to render military service came to 16,500,000 men.

According to the official data published in the last issue of the *STATISTISCHES JAHRBUCH FÜR DAS DEUTSCHE REICH* (page 27) there were mobilized during the War, in all, 13,250,000 men. This gives an overplus of 3,250,000 persons, who were liable to military service on the ground of age, but who were not called up. This is confirmed by the following calculation. From information obtained from the archives of the *Reich* we know that in Prussia on 26 March 1918 the number of persons liable for military service not called up amounted to 2,220,000; if it is taken into account that Prussia included sixty per cent. of the population of the *Reich* and that a higher percentage of persons not called up must be attributed to Prussia because the officials of the *Reich* who were exempted from service mostly resided there, it would seem likely that the total number of those not called up amounted to 3,250,000 persons.

The strength of the Army at the end of the War is shown in the *Statis-*

(1) See: *STATISTIK DES DEUTSCHEN REICHES*, Vol. 240, page 202.

tisches Jahrbuch as 8,000,000 men, besides the 3,250,000 men not called to arms. If there be added the 1,800,000 men who fell in the War, and 1,000,000 prisoners, there would remain, out of the 16,500,000 men liable for military service, a residue of 2,450,000 persons who at the end of the War belonged by age to the classes liable but who were exempted from service. The fact of this residue does not invalidate the exactness of our calculation. In this figure of 2,450,000 men there must be included in the first place those who were in the first instance unfitted for military service, either by physical disability or by illness, and in the second place those who became so during the War, being either disabled as a result of wounds or discharged on account of some chronic malady.

So much with regard to the total number of persons liable for military service and actually called up. What percentage of these belonged to the agricultural population?

According to the census of occupations of 1907, about 29 per cent. of the total population were reckoned as agricultural population. The percentage of men fit for military service and called up from the country in respect to the total of those mobilized must have been somewhat less than 29 per cent., since, as has been observed, on account of the migration, the age groups from which the men called to arms were chiefly drawn (from 18 to 45 years), were represented in a somewhat lower ratio in the country than in the towns. On the other hand the proportion of those physically fit for military service was much higher in the country than in the town. Taking both these factors into account, it may be concluded, without incurring the risk of being accused of making an arbitrary estimate, that about one quarter of all the men fit for service belonged to the agricultural population. If then of the figures quoted above 25 per cent. at most be reckoned as belonging to the agricultural population, we get the following result, as regards totals:

	Number of men (in millions)	
	In all	Belonging to the agricultural classes
Liable for service	16.5	4.1
Mobilized	13.25	3.3
Not yet called up at the end of the War . .	3.25	0.8
In the army at the end of the War . . .	8.0	2.0
Killed and prisoners	2.8	0.7
Unfit and disabled	2.45	0.6

From these figures it may be deduced then that in the course of the War there were called up between 3,250,000 and 3,500,000 persons who were engaged in agriculture, while the number of those who were in the Army at the end of the War amounted to 2,000,000; adding the prisoners and those who had been killed in action before the end of the War it appears that nearly 2,700,000 men had been withdrawn from agriculture.

The full meaning of these figures is seen if they are compared with the total number of the men occupied in agriculture; this makes it possible

to see how small were the resources of labour remaining available for agriculture.

	Agricultural population in 1907 (in thousands)	
	Men	Women
Persons engaged in agriculture as their main occupation	5,023.1	4,558.7
Members of the family of 14 years of age and upwards	128.6	1,638.4
Members of the family under 14 years of age	2,732.1	2,692.3
House servants	4.2	143.3

In these figures there are not included those who carry on agricultural work as a subsidiary occupation or as in any way secondary. Farm servants, of either sex, are not of course enumerated under the heading "house servants" but are included in the group of "persons engaged in agriculture as their main occupation." The whole of the agricultural production mainly depended, then, on the work of this group, which taking men and women together, included about 10 million persons. As a supply not fully remunerative we may add members of the family of 14 years and more. Omitting women, the males belonging to the two groups included 5,200,000 persons. Of these, according to our calculations as set forth above, there were in all mobilized in the course of the War 3,300,000 or 63.5 per cent. And that this percentage is not exaggerated is shown by an enquiry made in 1916-17 in about 3,000 rural communes of Bavaria, from which it appeared that in those districts there had been withdrawn from agriculture up to 70.6 per cent. of the supplies of labour available before the War (1). It is true that the calling up only took place gradually. But the men supplied to the army from the rural population were always the strongest and the most efficient workers. How was it possible for German agriculture to be maintained at the full level of production?

§ 3. THE PROHIBITION OF THE REPATRIATION OF FOREIGN MIGRATORY LABOUR DURING THE WAR.

It was a fortunate circumstance for German agriculture that the outbreak of war coincided with a time when the foreign seasonal labourers were still in the country. The harvest had hardly begun. Its completion would have been endangered most seriously, if those workers whose labour was now doubly precious had been allowed to leave Germany. As far as the Russian labourers were concerned, inasmuch as they were liable for military service, this possibility was excluded for military reasons alone. It was thus decreed almost immediately after the outbreak of war that the Russian labourers who had come for the harvest must remain quietly wherever they were carrying on their work.

But what was to be done, once the harvest was over?

(1) SCHLITTENBAUER: Produktionsbedingungen der deutschen Landwirtschaft. *Süd-deutsch. Monatsh.*, 1917.

The problem had to be settled in the autumn of 1914. The optimism that prevailed in Germany as to the duration of the War found expression in a Decree that the Ministry of the Interior issued on 28 September 1914 by the terms of which "having regard to the number of unemployed in Germany" the period within which the foreign migratory labour would have to leave Germany was prolonged, that is to say instead of beginning on 20 December and ending on 1 February, it would have begun from 1 December and would last till 14 March. Those who were liable for military service, that is men from 17 to 45 years, were naturally excluded from repatriation. They all had to remain in the places where they had up to then been at work. The employers were obliged to give them lodging and food even after the expiration of the hiring agreement and unless they were able to find work for them to do in return for their maintenance, they were entitled to receive a money payment from the Russians in exchange (1). The labourers not liable to military service and the women could leave the country by passing through neutral territory if not bound by any agreement. They would be free to return home direct across the frontiers, so soon as the crossing of frontiers was again possible. In the event of repatriation not taking place, they would have to remain wherever they had been at work, on the same conditions as those liable for military service (2).

It very soon became quite clear that it was advisable to retain the seasonal labour in the country. How would it be possible without their help to carry out the spring cultivation? Naturally their return could not be counted on. The objections previously raised that these foreigners were taking the bread out of the mouths of unemployed Germans proved to be without foundation. The decrease in the chances of work which the outbreak of War brought about only affected the industrial trades and was soon more than balanced by the call to the colours. Already on 12 October 1914, by which time the retreat from the Marne had not failed to make its impression, the Ministry of the Interior issued "explanatory notes" to its Decree of September, giving an interpretation of it somewhat differing from that hitherto acted upon. The general tendency of these measures was directed towards keeping in the country all the Russian labourers who were in Germany at the time. Their relations with the employer were to be as friendly and pleasant as possible, with a view to making the prolongation of the hiring agreement to the next season acceptable also to the labourers. Nor was any importance of a practical kind to be attached to the original provisions by which labour not liable to military service and female labour could be repatriated through neutral territory. Such regulations had been issued merely in compliance with certain understandings with Russia in the interests of Germans who happened to be in Russia. And if employers had been allowed to require from the Russians during the

(1) This payment was 50 *Fennigs* per day; in case of need, this sum could be deducted from the caution money deposited with the employer.

(2) The representatives of the General Command, in so far as they were invested with executive power, gave suitable directions to meet these cases.

winter a payment for their keep, the farmers should understand nevertheless that it was to their own interest to give these labourers free board and lodging. "It would be a mistake to underestimate the danger of a further withdrawal of the supplies of agricultural labour". A very high value was to be placed upon the harmony of the relations between employer and immigrant labourers, since the country would come to depend more and more upon the seasonal labour. Every endeavour was to be made to come to a friendly understanding; if that failed then recourse was to be had to strong measures. If the foreigners could not be made to understand that they had to work, the possibility of internment in a prisoners' camp would have to be contemplated.

In order to exercise a control over these labourers their liberty of moving about was curtailed. They might quit their own district only by police permission and might change their employment only with the authority of the *Landrat*. Employers who took on foreign labourers without a note of discharge from their previous employer and without a police visé rendered themselves liable to imprisonment. Voluntary departure or disappearance of the labourers had to be reported within 47 hours, under pain of a penalty.

But by the Decree of the Ministry it was clear that preference was given to a friendly understanding rather than the employment of severe measures. In an appeal to the employers dated November 1914 the *Deutsche Arbeiterzentrale* invoked the humanitarian feelings of the farmers: "It must not be lost sight of that the strain of War presses hardly on these foreigners too. They are all separated from their country and from their relations, and many of them may be feeling an overwhelming desire to see their homes, their wives and children, and to be near their own people at this crisis. And if their stay here means for these people physical safety from danger and death, a secure retreat from the hurricane of war, it is in respect to things of the spirit, a grievous restriction, a bitter fate. The farmer who bears this in mind will more readily find the right note to strike in talking with his men about the agreement, and he will not fail to come to an understanding, if he will also pay attention to the warning that the interests of his own farm and of German agriculture as a whole may convey. Everything depends on agriculture commanding in this next year the labour indispensable for the accomplishment of its important tasks, and to achieve this end the main factor is confidence as between employers and men, and contentment on the part of the people detained here. It will be absolutely necessary and fair to give an undertaking immediately to these labourers that for the next agricultural season (beginning from 15 March) they should be paid the same wages and allowances as they were this year, and to treat them through the winter in such a way as that they are not merely protected against hardships and privations, but are also in the way of earning something, if they are prepared to work".

These and similar admonishments did not remain without effect. In December 1914 the Ministry of the Interior could declare with satisfaction that almost everywhere the Russians were still employed at their

former places of work. Thus special measures to provide for unemployed Russians were unnecessary. The agreements concluded with the labourers were in general so formulated as to engage them for the coming season. As a guarantee to the employer it was stipulated that the money wage should not be paid in full; he might keep back about 30 per cent. to be paid only at the time of the departure of the labourers which, it was anticipated, would take place in the normal way in the autumn of 1915.

Cases of labourers who had absconded were very rarely reported. In the province of Saxony, which had the greatest number of foreign labourers and where the frontier was not far away, there were however some attempts at escape. But there was no scope for this on a large scale. This is shown by the statistics of the *Deutsche Arbeiterzentrale*. This had registered during the year 1913-14 (1 October to 30 September) 286,413 seasonal farm-labourers coming from Russia; their number in the next working year was only reduced to 275,972. The decrease was thus extraordinarily small.

A different kind of procedure was naturally followed in respect to the Austro-Hungarian labourers. The men liable for military service had to be sent to their own country. Those not so liable would willingly have been retained in Germany. Since Galicia immediately became the centre of military operations, the Austrian Government itself attached no importance to their return. The Austro-Hungarian Consul-General at Berlin therefore in December 1914 gave the male and female workers from Galicia who were in Germany the "fatherly advice" that they should stay where they were offered the possibility of an existence without pressing anxieties and should continue to do their work quietly. "Anyone who wants to return to Galicia runs the risk of being sent back from the frontier or of being taken to the concentration camps. It is easy to understand that to remain where one is in Germany is to be preferred to an expensive, tedious and fruitless journey, or particularly to a sojourn in a concentration camp. Here at least you have a roof over your heads, your keep and a wage." Later however the repatriation of these people seemed desirable, as they came to be wanted in their own country. Out of consideration for their allies, the German authorities could put no hindrances in the way of the departure of the Galicians. And thus the number of the seasonal labourers who were natives of Austria-Hungary fell off considerably from year to year, as appears from the following figures of the *Deutsche Arbeiterzentrale*:

1913-14.	135,868
1914-15.	49,791
1915-16.	26,581
1916-17.	19,304
1917-18.	14,262

But we have anticipated events. In the autumn of 1915, it was decided that for the winter again the Russian labourers could not leave the country. The measures of the preceding year were again renewed and formulated once more. The representatives of the Army Command

issued a new Order, regulating the relations between employers and labourers; this was made known by means of public notices. There were also "explanatory notes" which were not published. Since these regulations remained in force so far as their principal lines were concerned for the whole duration of the War, it seems well to set them out in detail.

§ 1. "All Russian labourers of both sexes are forbidden for the future and until a new order is issued to leave the country without authority. From this prohibition are exempted women and men of less than 17 years of age or more than 45 years, not being bound by a hiring agreement, who hold a railway ticket to a station in a neutral country and a passport viséd by the diplomatic or consular representative of that country, and who may satisfy the regulations in force for journeys to the frontiers of the *Reich*". To this provision there is subjoined in the "explanatory notes": "The prohibition of direct repatriation across the Prusso-Russian frontier is absolute, in the sense that not even any consent the employer may give can do away with it". "In case of urgent necessity female labourers or male labourers not liable to military service can obtain a permit to go to their own country for a fixed time, but only when there is no ground for believing that the person in question may considerably protract the period of leave granted or indeed may not return at all. The authorization for definite repatriation to Russia is only given to those labourers who in consequence of illness or accident have become unfit for productive work. The return to their own country of women and of men not liable to military service, across a neutral State, is to be allowed, in conformity with the agreement with the Russian Government, but the effective value of this exception to the prohibition of repatriation is very small since the home of the great majority of the Russian labourers is to the west of the present Russian front, and it cannot therefore be reached by these people across a neutral country".

§ 2. "Russian labourers whether men or women may not go beyond the district boundaries of their place of work (except to go to be present at religious services, on Sunday and on festivals, at the church of their own faith nearest the place of work) without a permit given by the local police authority.

"Transfer to another place of work must be authorized by the authorities".

The "explanatory notes" show that the prohibition formerly in force as to going beyond the local police district boundaries had been transformed "for reasons of convenience into an unequivocal prohibition to change the place of abode". Thus on the one hand undesirable changing of the centre of work was made more difficult, and on the other hand obstacles were put in the way of Russian labourers of a wider area meeting too often and being incited by restless spirits to disorder and offences against the law. The changing of the place of work was made dependent on the circumstance that the labourer was assured of occupation by another employer. If those who had up to that time been the employers also had agreed to the transfer, permission was granted without further question; in the contrary

case the decision was to be based on a fair consideration of the grounds of the requests of the labourer and of the employer.

§ 3. "For Russian labourers employed in agriculture or in similar undertakings to whom the prohibition of paragraph 1 applies, the following special regulations also hold :

"At the expiration of the present hiring agreements new ones valid for the winter months and for the season 1916 must be concluded, and the labourers are under an obligation to apply to the local police authority before 31 January 1916 as the last date, for the granting of the certificate of recognition as labourers for the year 1916.

"The employers must ascertain that this obligation has been punctually performed and are expected to report defaulters in this respect, by the 5 February at latest, to the competent *Landrat*, stating at the same time whether a new hiring agreement has been stipulated or not.

"There must be supplied to Russian labourers who at the expiration of the existing hiring agreement had not made a fresh one, by their employer up to that time, food and lodging for the period between the expiry of the agreement and the stipulation of a new one, and this against a payment of 0.70 marks per day per person by the labourer, to be deducted if necessary from his caution-money".

The "explanatory notes" added that the clauses of the hiring agreement remain a matter for a free understanding between the parties concerned; but the Chambers of Agriculture were authorized for that year also to assist their members by issuing general rules in which in respect to wages for farm work a distinction would be made between the period lasting from about the 15 December to the 15 March and the following months of more concentrated agricultural work. The *Landräte*, as in the past, were to consider as one of their most important tasks that of promoting a peaceful understanding between employers and labourers and of upholding by their influence the concluding of agreements by which the rights of both parties would be satisfied. Peculiarly beneficent and effective action could be taken in this way on behalf of labourers who within the time fixed had not entered on a fresh hiring agreement. If the efforts failed in face of unreasoning resistance and obstinate opposition on the part of the labourers, these latter as soon as they could be considered as unemployed were to be reported to the Army Command for internment in a prisoners' camp. The tendency that might arise on the part of individual employers to reduce their labour resources too far in the winter with the aim of cutting down the wage-sheet and in the expectation of being able to make up in the spring by the work of prisoners of war was to be met by letting it be understood that supplies of prisoners of war would not be available for this purpose.

§ 4. Finally the last paragraph contains the penalties for the cases of infringement of the regulations of paragraphs 1 to 3 and in connection with these the "explanatory notes" make the observation that the penalty of imprisonment, the only one provided in the ordinances of the Army Command for the previous year in the case of breach of the prohibition against change of residence, had caused inconvenience, since the labour of

those so punished was thus withdrawn from the employer for a period more or less long even in the less serious cases, where there was no intention of a breaking the agreement or of unauthorized return to the native country. For these cases, money penalties would be adopted in the future. On the other hand, grave breaches of contract, with or without unauthorized attempt at escape to the native country, would be met, as in the past, by penal restrictions on personal liberty. And so that these might make more impression, the labourer after the punishment was over would not be returned immediately to a place of work, but would be first assigned for about four weeks to a prisoners' camp.

It must be admitted that in point of severity the measures left nothing to be desired. They would have been called Draconian, except that they were issued by a State which, being systematically starved by its enemies, was engaged in a struggle for its very existence. The life of the nation depended on the national agricultural production. No means could remain untried to ensure the necessary labour for the fields.

And yet it had to become obvious that with the passage of time, it became increasingly difficult to maintain the seasonal labourers in the country. The need for labour for the war industries became greater, and since these could and did pay wages incomparably higher than those paid by agriculture, which was forced to let its produce go at low prices, these industries exercised a considerable power of attraction on the labourers. A contributory cause was that the farmers themselves made the mistake of releasing temporarily for industry their own seasonal labourers during the winter, so as to save the necessity of finding their keep. It naturally proved difficult for agriculture to regain this labour, once the men had begun to enjoy the higher industrial wages, or if the farm work was taken up again it was not to be expected that there would be the former contentment with it.

If, notwithstanding, according to the statistical returns of the *Deutsche Arbeiterzentrale*, the number of the Russian seasonal labourers did not fall off, but increased in a not inconsiderable proportion, this must be attributed to various causes. Above all it is to be remembered that the registration was carried out much more strictly than had been done previously and in the second place the *Deutsche Arbeiterzentrale* succeeded in obtaining a fresh supply of labourers from the territories occupied by the German armies.

As early as 1915 the *Deutsche Arbeiterzentrale* had recruited and brought into Germany labourers from the occupied Russian territories. Their number was not very large; there were only 35,000 men who were to be wholly devoted to agriculture. Amongst these were however included 14,000 Russo-German returned emigrants.

The following year an even greater effort was made. So as to concentrate the work of recruiting the labour, the monopoly was given to the *Arbeiterzentrale*, but the representatives of the employers could collaborate with it and could be permitted for that purpose to introduce labour into the country. In fact officials of the Chamber of Agriculture

went to Poland several times expressly for the purpose. The labourers were taken over at the frontier. Expenses of the inward journey were paid by the employer, those of the return journey by the labourer. The labourers underwent medical inspection at the frontier and also vaccination and disinfection. The minimum wage decided on was laid down at the time of the recruiting. In 1916 the pay was as follows:

(A) *Money wages on the higher scale and payment in kind on the more restricted lines (so-called "Russian wages")*.

1. *Rate per day*, according to the season, the age and sex of the labourer, from 1.20 to 2.60 marks;

2. *Weekly payments in kind*: 30 pounds of potatoes, 2 litres of skimmed milk or one litre of unseparated milk or of sweetened coffee with milk, half a pound of flour, three pounds of bread, 2 pounds of husked barley or of semolina or of husked oats or one pound of beans, half a pound of meat, one pound of sugar and half a pound of salt.

(B) *Money wages on the lower scale and payment in kind on the higher scale (the so-called "Galician wages")*:

1. *Rate per day*, from 0.80 to 1.75 marks;

2. *Weekly payments in kind*: one pound of husked barley or rice, one pound of beans, one pound of lard, one pound of meat, 25 pounds of potatoes, 7 litres of skimmed milk or three and a half litres of unseparated milk, half a pound of salt. Instead of 10 pounds of bread for men, 8 pounds for women, boys and girls, and one pound of flour, the ration of bread and flour fixed by the ordinance of the Federal Council for the German population as a whole had to be supplied; but the difference might be paid in money, on the basis of the current market prices.

It may be said that these allowances were not only adequate but that thanks to the payments in kind included in them were of high value, given the conditions of the provisioning of Germany, where from 1916 the scarcity of food had begun to make itself felt. But if it was desired to attract labourers, food in some abundance had to be offered, even at the risk of arousing protest from the German populace. The recruiting work of the *Deutsche Arbeiterzentrale* was however rendered more difficult by the state of the food supply of Germany.

The migratory labour nevertheless became as time went on more and more essential. In the autumn of 1916 the *Deutsche Arbeiterzentrale* advised employers to give up a special winter agreement on a reduced scale. This advice was based on the ground that, whereas at the beginning of the War the retention of these labourers in the country could be considered as a sort of guarantee measure, which however imposed a considerable burden on the employers without a corresponding advantage, the situation

now resolved itself into this, that the farmers could not get on without these labourers, even in winter. And accordingly a lowering of the wage below the proportion fixed in the agreements for the summer (already low, since the shorter winter hours of work were taken into consideration), would not be justified in the circumstances and would seem to be unfair to all concerned. By such measures the desire to return to their own country, always there, would become much stronger, which would constitute a real danger inasmuch as the frontiers were now in fact open, owing to the incorporation of the frontier guards in the army. Further the employers were advised to provide sufficient food ; this not only as a duty, but in their own interests. It was recommended to give these people all necessities, even when it was not so provided in the contract. If for special reasons this was not feasible, the employer ought to give his men every possible assistance in the purchase of the necessary food. Finally it was recommended that employers should increase the payments in kind in respect to the rates fixed by the *Zentrale* seeing that the rise in prices had affected not only foodstuffs, but also the other articles of prime necessity.

The situation became more acute and gave rise to further anxiety, when the important event of the proclamation of the Kingdom of Poland became known. In consequence of this there had to be a change in the attitude of the German Government towards the Polish labourers and the Russian seasonal labourers were mainly of Polish nationality. Formerly they had been citizens of an enemy State, and as such could be subjected to various sorts of treatment, without their being able to complain of their treatment in comparison with the unhappy lot of German civilians interned in enemy countries. They received fair pay and higher than in time of peace. It is true they were subjected to prohibitions as to change of residence, but this restriction of personal liberty seemed a small thing compared with internment in concentration camps.

The effect both on the Polish labourers and on the German farmers was very marked. The former at once thought that they could return to their country, as they had been for several years so eagerly hoping to do ; but the German farmers felt it spelt disaster for them, if the Poles, who in many parts now represented the sole supply of male labour left, should leave their farms. The calamity that might result from a general exodus of the more valuable agricultural labour was simply unimaginable. The vocational associations and the agricultural organizations combined to resist such a possibility and made urgent representations to the Chancellor of the Empire and the Minister of War.

The Government officials of Berlin endeavoured to soothe these troubled spirits. In December 1916 the representatives of the General Command issued a notification something to the following effect: Now that the Kingdom of Poland is proclaimed, the military aims of Poland and Germany are identical. Accordingly every Pole is equally concerned and equally involved in the carrying on of the German military arrangements without disturbance. And therefore it is decreed that during the transition to complete self-government of the occupied territory of Poland, the existing

arrangements shall remain in force, till further notice, for Poles resident in Germany. In spite of international agreements, the Poles who are working in the interests of the War in Germany cannot leave Germany, except for a short time.

Everything had to remain as it had been. Indeed in a decree of the same date, the Minister of War ordained that the recruiting of Polish labour in the interests of military economy must be pressed forward in every possible way. The public recruiting offices in Poland had to be kept going and were even enlarged. Women were to be employed as much as possible in Polish agriculture, so as to render a larger number of men available for Germany. Besides, all labourers not urgently required in Poland were to be immediately taken off work there. The object of all this was to prevent a stop being put to the immigration of labour from Eastern Europe. But it had now to be invited, whereas formerly it could be coerced. And in order to find minds prepared to accept the invitation, it was essential to improve labour conditions.

The first measure of a general character on the treatment of Russian labour which appeared after the proclamation of the Kingdom of Poland, in January 1917, already struck a somewhat altered note. Leave to go home was granted to the Polish labourers: with a certain limitation however. Thus leave was refused if there was any ground for suspecting that a labourer would overstep the limits of the furlough or would not return at all. Moreover, except in cases of urgent need, the leave could only be granted to labourers who were on farms where they had been employed for a certain length of time, namely about six months.

Finally, every labourer, before going on leave, had to make a declaration that any expenses incurred by his having to be brought back by force would be considered as advanced out of the payments made to him by his employer as wages.

The same ordinance modified the prohibition on change of abode which was up to then in force. The Conciliation Committees attached to the General Command were to have the duty of acting as organs for the settlement of questions arising between employers and employees, as regarded change of abode on the part of the employees. But if one of the parties opposed the decision of the Committee, the question would have to be resolved, as in the past, by the administrative authorities "taking into due consideration the pleas put forward by the employer and the labourer". If the labourer had been assigned to a new place of employment care had to be taken that he did not receive a lower wage.

"The excessively rigid application of the provisions prohibiting change of abode often led to complaints the occasion for which it was worth while to remove in order to make the Poles ready to accept work in Germany.

"(a) Inasmuch as the doctor, the chemist, the midwife, as well as the post-office, the co-operative stores, the charitable institutions, the shops, etc., nearest to the labourers, though not far from their place of employment, are generally in another district, the labourers are obliged, in order to pro-

vide for their needs and to satisfy the most essential requirements of life, to contravene the prohibition to quit their own district. Hence to prevent unnecessary hardship short absences which, in the opinion of the employer, are necessary must be permitted.

" (b) It should also be borne in mind that in the less serious cases of breach of the regulation against change of abode, when there was no intention of defying the law or of returning to the native country without leave, a fine is first imposed, and moreover that such fines must be fixed within the maximum limits that the labourers can pay. In case of necessity there is no objection to the caution-money which the employer holds being used for this purpose, it being understood that repayment be afterwards made.

" As before, serious infractions of the agreement will be punished by penal restrictions of personal liberty; but consignment to a prisoners' camp should, in view of the change in the political situation, be resorted to only in extreme cases (if indeed it cannot be altogether given up) — when, that is to say, there is no other method of keeping the labourers in order ".

In the autumn of 1917, certain other steps were taken in this direction. The possibility of obtaining leave of absence was recognized for Polish labourers belonging to the territories under German occupation. In the case of large farms, this leave might to be taken in rotation, giving the first chance to married labourers, especially to the women, who had not had during the War any leave granted to visit their own country. Special appeal commissions were set up in connection with the Offices for War Economy, to which Polish labourers could appeal in case of refusal of leave. The prohibition on change of abode was still further modified. The Arbitration Committees were to include persons who could speak Polish. For church-going and also for short absences from the place of employment for any ordinary requirement, permission could be granted for the current year. " There must be no obstacle raised to the access of Polish labourers to German trades unions within the limits of the activities allowed by law ".

The interests of the Polish labourers were however safeguarded by positive measures. In the zone of the sphere of action of the representatives of the General Command there were set up offices especially for the purpose of helping them. These offices were organs of the representatives of the General Command. They had the duty of overlooking the putting into force of what facilities were granted to the Polish labourers, and for that task could make use of representatives of the labourers themselves. They were expected to ascertain if the lodging, food, pay and general treatment of the Polish work people was all that it should be.

So as to ensure the more effective carrying out of these measures for the welfare of the labourers, the Ministry of War set up, where necessary, travelling inspection commissions, which were under the direction of a competent official and the members of which were in the confidence of the Poles. These went round visiting the different farms, under the auspices of the General Command; they collected requests made and complaints

tendered and reported to the Ministry of War on these, and on the result of their own deliberations. They had however not only to collect such complaints but also to make matters clear to the Polish labourers and soothe their minds when their grievances were unfounded. Altogether they had to devote themselves to putting a stop to hardships and to removing grievances that had a real existence.

For the following agricultural season wages were considerably increased. Proof of this appears from the scale of remuneration laid down for employers by the Chamber of Agriculture for the Rhine Province, 5 December 1917:

1. Rates of pay per day.

For the four winter months (December, January, February, March):

Men	3.00 marks
Women	2.00 »

For the remaining eight months:

Men	3.50 marks
Women	2.50 »

Besides, payments in kind as in peace-time or an equivalent money payment.

Boys under 17 years of age were to be paid at the rates fixed for women.

2. Payment for piece work.

(The rates are reckoned per Prussian *Morgen* = 180 square *Ruten*).

A. Harvest work:

1. Reaping the winter sown cereal crops, including binding, stooking and raking	6.00 marks
2. Reaping the summer crops	6.00 »
3. Harvest money, as agreed	
4. Binding and stooking of crops machine cut	2.25 »
5. Stooking corn	0.60 »
6. Mowing grass	3.00 »
7. Mowing of clover or lucerne	3.00 »

B. Hoeing:

1. Hoeing of sugar-beet:	
(a) For the first weeding (the removal of weeds from between the rows)	2.50 »
(b) Thinning out the rows (each plant to be left so many inches from the next)	2.00 »
(c) Singling	4.00 »
(d) Second hoeing and singling	4.00 »
(e) Third hoeing	3.50 »
2. Hoeing potatoes	3.00 »
3. Hoeing cereals	2.70 »

C. *Harvesting of Sugar-beet:*

1. Lifting the sugar-beet, collecting into heaps, and making heaps of the weeds	14 00 marks
2. Lifting the sugar-beet, collecting into heaps and covering with the leaves	14 00 »

As a result of this the seasonal Polish labourers were in a much better position than they were before the War. It may well be imagined that the employers were dissatisfied about this. Among the rural population, too, there was felt a lively and not unreasonable discontent that grants of leave had been made to Polish labourers at the moment when there was a scheme for suspension of all leave for German soldiers.

And what came of all this liberal treatment? Exactly the opposite of what had been hoped. There seems, it is true, to have been no foundation for the anxiety on the part of the farmers that the labourers, once having obtained leave, would not return any more: the large majority did come back to their work; but it became increasingly difficult to deal with the Poles. Friendly treatment was interpreted as weakness. The Polish labourers were never content. Looking at it from their point of view, this is comprehensible. However well they were treated, there was always the sore point; their freedom of action was restricted, they were not free agents. The Polish agitators could always count on a ready ear when they spoke of the work of these labourers in Germany as "forced labour".

So long as the Polish labourer was not free to dispose of his own labour it was easy to inflame him against Germany, and this was done very successfully. All this coincided in time with the rapid worsening of the food situation in Germany. The discontent grew as the food became more and more scarce. The payments in kind promised in the hiring agreements could not be kept to, and the extra pay given instead was not a compensation, since the money could buy little or nothing. This was recognized even by the German authorities, and an attempt was made to remedy the state of affairs by including the seasonal labourers on the lists drawn up by the groups of communes of persons authorized as "self suppliers", or by allowing them full board. But not much could be expected in view of the fact that there was not a sufficient food supply in the country. Recruiting became more and more difficult. Even the renewal of the former hiring agreements was interfered with by the difficulties of the food supply. Further, the Poles, towards the end of the War, refused to be bound by agreements, so that they might be free to return at once to their country at the moment the peace to which they were looking forward was declared.

The position had become untenable in Germany even before the final defeat. In the summer of 1918, the authorities concerned were considering whether the prohibition on repatriation of the Polish labourers should not be altogether suspended. The *Deutsche Arbeiterzentrale* pronounced favourably on this, partly in order to encourage recruiting, partly from political considerations, in view of the fact that compulsory measures could not have long been maintained in regard to the Poles. In spite of the pro-

hibition on repatriation, the Polish contingent in Germany became gradually reduced from the time that the frontiers were no longer occupied. On this account fresh recruiting would have been necessary, and it might have led to good results, if only full freedom of action had been restored to the Polish labourers. Thus and thus only would it have been possible to allay the strong feeling the Poles entertained in regard to the German recruiting. The mere catchword "What? Do you want to do forced labour in Germany?" had an extraordinary effect.

The representatives of German agriculture, on the other hand, felt that they could not give in, seeing that even in winter the Poles could not be dispensed with on the farms. The authorities were equally not to be convinced at first, but there was a change before long. On 12 October 1918 the Ministry of War issued the following order:

"The regulations with respect to the forcible bringing back of Polish labourers who have not returned from leave or who have escaped from their places of employment in Germany cease to be in force from this moment. Further, the prohibition of repatriation is modified so far that all the Polish farm-hands coming from the Governments of Waraw and Lublin, who have concluded an agreement for the next season with their former employer may, if they so desire, go to their own country on leave for the winter months, always provided that the transport facilities and the conditions of the work on the farm make it possible.

"In the treaty shortly to be concluded with the future Polish Government there shall be inserted a clause in accordance with which that Government shall pledge itself to repress any agitation in the country against the recruiting of Polish labour for employment in Germany, to put no obstacle in the way of this recruiting on the part of German organizations entrusted with this duty, and on its own side to take steps to ensure the punctual return to their places of employment of those persons who may have concluded agreements for the next agricultural season".

This was the last provision of a general character on this subject made by the former German government. It meant the abandonment of the attempt to regulate the problem of Polish labour by its own authority. It was hoped that it would be possible to arrive at a solution with the aid of the new Polish State the creation of which had given rise to all the difficulties.

The revolution and the armistice then speedily and effectively swept the whole question off the stage. A Decree of the Ministry of Public Works of 18 November 1918 briefly ordained that the foreign labourers should be at once sent away so as to "give up their places to the labourers returned from the front". In spite of protests, this was done without even waiting for the completion of the harvest.

In Table II (page 866) we give a statement of the composition of the foreign seasonal labour, on the basis of the entries registered by the *Deutsche Arbeiterzentrale*. The last year of the peace and the first two years of the after war period are compared with the four years of the War itself.

Mainly on account of the withdrawal of practically two-thirds of the seasonal labourers of Austro-Hungarian nationality, the number of foreign seasonal labourers fell in the first year of the War by about 100,000. That the total number increased steadily until it had again reached a high figure in the last year of the War, is due to the recruiting undertaken by the *Deutsche Arbeiterzentrale*.

It recruited in the occupied territories :

in 1914-15	34,899	farm labourers	
» 1915-16	27,444	»	»
» 1916-17	36,031	»	»
» 1917-18	48,524	»	»
Total . . .	146,988	»	»

Of these, the following number were returned Rus-o-German emigrants :

in 1914-15	14,010	farm labourers	
» 1915-16	5,315	»	»
» 1916-17	3,429	»	»
» 1917-18	6,424	»	»
Total . . .	29,178	»	»

The number of labourers coming from Russia went on increasing ; in fact it reached a higher level than in peace time.

It was :

in 1913-14	286,413	farm labourers	
» 1914-15	275,972	»	»
» 1915-16	311,658	»	»
» 1916-17	326,683	»	»
» 1917-18	348,486	»	»

Since in the year 1914-15 302,853 farm labourers were registered as already in the place of employment, there should have been (if in the meantime no departures had occurred) 449,751 such persons in the country at the end of the War.

There were actually only 372,274 at the end of the War, and accordingly, 77,477 labourers had gone away. But of these only 37,019 belonged to the group of labourers coming from Russia, and 40,458 belonged to Austria-Hungary and to other countries. Thus the number of the Russian seasonal labourers who ran away does not seem to have been very considerable, seeing that the ordinary reduction in numbers through disease and death cannot be left out of account, and it must be remembered that a certain number of the farm workers were transferred, during the War, to industry.

§ 4 THE EMPLOYMENT OF PRISONERS OF WAR FOR FARM WORK.

While it was of immense advantage for agriculture and for the maintenance of the food supply of Germany that it was possible in this way to make use of this mass of foreign seasonal labour, a further source of assistance was found in the prisoners of war — another supply of foreign labour — a form of assistance that kept on increasing in importance as the War went on. This help was not at first taken into the calculations of the authorities. But when, after the first great battles, there was an immense influx of prisoners of war into Germany, the Quartermaster General made the proposal, at the beginning of September 1914, to utilize these prisoners (in the first instance he was only thinking of a section of the Russian prisoners) in the harvest operations, in particular so as to ensure the gathering of the potato and sugar-beet crops. The general principles to be followed in this matter were accordingly formulated by the ministries concerned and communicated to the various offices connected with them. It was laid down as a fundamental basis of action that the labour of prisoners of war was not to bring about any reduction of the chances of employment for German unemployed workpeople, but at the same time it was stated that work must nevertheless be found for the prisoners of war, "so as to avoid the demoralizing effects of inactivity, to prevent the State from having to provide for their keep without corresponding advantage and, finally, to turn the labour capacity of the prisoners to economic effect". The victualling, lodging, and guarding of the prisoners would have to be the business of the military administration. "The feeding is to be kept on the simplest possible lines, and in any case the daily expense is to be within 60 *Pfennige* per person. In this sum the cost of a daily ration of 500 grammes of bread is not to be included. The use of alcohol is forbidden". In the event of the utilization of the prisoners in harvest work, the expenses of board, lodging and medical treatment were to fall on the employer. No remuneration was to be given to the prisoners; however, in the case of a day's work exceeding five hours, a small payment of not more than 10 *Pfennige* might be given for each hour beyond that limit "so that those who were diligent might have the benefit of some little extra luxury in the way of food".

These "general principles" formulated in the early days when the employment of prisoners of war was only beginning, could not form the last word on the subject, which was full of complications. After careful consideration, there were published, on 15 January 1915 fresh "explanatory notes" of a detailed kind, covering ten pages of print, relating to the remuneration of prisoners of war, and intended to take the place of all the previous pronouncements on the subject, and to fill up sundry gaps.

Stress was once more laid on the necessity of keeping in mind, while employing prisoners of war, the general position of the labour market, and for this reason before making arrangements of any kind, the Central Labour Information Bureau should be approached to know if there were

any considerations that should modify action. The utilization of prisoners of war, apart from any such considerations, should be carried out on the lines of article 6 of the *Landkriegsordnung* (Appendix to the Hague Convention of October 1907). It runs as follows:

"The State is authorized to employ prisoners of war as labourers, in accordance with their calling and capacity, always excepting officers. The work given to them to do must not be excessive and it must be in no way connected with the military operations.

"Permission may be accorded to the prisoners of war to execute work for public bodies, or for private persons or on their own account.

"Work for the State is paid at the rates applicable to soldiers of the German army for the execution of similar work, or, if such rates have not been fixed, in a proportion adequate to the work done.

"If the work is executed on the account of other public administrations or for private persons, the conditions are fixed by agreement with the military authorities.

"The earnings of the prisoners of war are to be used for various alleviations of their situation and any surplus, after deducting maintenance expenses, must be paid to them at the time of their release".

The clauses of the *Landkriegsordnung* only gave the main guiding lines. But how was the remuneration of prisoners to be managed in practice? In the "explanatory notes" the following considerations were set out. If the total State expense for the maintenance of prisoners were taken together, it certainly would have exceeded the sum to which the prisoners' remuneration might have amounted in all. From that point of view, the labour of prisoners of war could not have left a surplus to be paid "after having deducted the cost of maintenance". But if, instead of regarding this expense as a whole, there were placed against the proceeds of the work of any individual prisoner his share in the maintenance of all there would have been, at most, a surplus in respect of a few prisoners who might have happened to have found work paid at a high rate, for example in private undertakings, where they were replacing the free labour which had been called up. But these would easily have found the work that suited them, whereas the great mass of the prisoners, put to works of public utility, less well paid and heavier, would not have been able to earn any margin. This would have been not only unfair, but also an inconvenience. On the other hand it was evident that coercion alone was not enough to make prisoners of war do work that really brought in some return. The ill-will that inevitably accompanied any form of coercion could only be overcome if the prisoners of war were allowed some part of the money they earned.

Since a "surplus" in the sense of article 6 of the *Landkriegsordnung* was not to be anticipated, any share in the earnings would have to be arrived at on an entirely new basis, namely, the fact that it was open to every prisoner of war doing work to ensure to himself some share in the proceeds in so far as he by more application contributed to a corresponding increase in the proceeds of, or returns from, that work. This sharing in the return resulting from such increased output would act as a stimulus

on the prisoner, so that his powers would be more fully turned to account than if he were doing unremunerated labour; and this would act in the general interest, so as to bring about a total increase of the proceeds and output of the prisoners' labour.

It was evident that such a share in the proceeds of labour could not any longer depend, as regarded extent, on the amount of the remuneration in itself, but on the hard work by which this output or return was increased. For this purpose it was necessary to distinguish, on the one hand, between the rate at which the prisoners' work should be paid by the employer, and on the other hand, in what way the prisoners themselves were to receive any remuneration by a share in the earnings. These two aspects of the question had to be kept apart throughout.

1. *Remuneration of the labour.* — Here a distinction had to be made according to the nature of the work. Leaving out of account work for the military authorities, such as work on camps, drill-grounds, shooting ranges, etc. which were to be considered as "home service", the following kinds of work were to be kept in mind:

(a) *Work for Government purposes and objects of public utility, for the State authorities, for communes or for co-operative societies (works of public utility).* — The lodging of prisoners was, in default of any other arrangements that might be made, at the expense of the Commissariat. This body also provided in the main for the maintenance, either undertaking it directly or deputing some one to do it. The rate was 1.20 marks per day per head for the guard, and 0.75 marks (which included 15 *Pfennige* as bread ration) for the prisoners. In many cases it was more convenient to let the employer be at the cost of the maintenance, and then expenses were to be reimbursed to him on the basis of the rate as stated. The Commissariat was also to provide for clothing. As remuneration for the labour there was to be paid to the military authorities the actual proceeds of the work, estimated either on the basis of the appropriate rate for piece work or, when there was no means of fixing that, on the basis of a daily wage per prisoner to be agreed on.

(b) *Farm labour of all kinds (including reaping) on private property.* — All work of this kind was undoubtedly of advantage to the national economy, but of value also to private individuals. It was thus reasonable that, in the main, the employers rather than the Commissariat should provide for the board and lodging both of the prisoners and of the necessary guard and should bear the expense in full.

(c) *Emergency work in the event of regular labour not being available.* — Prisoners of war had to be put at the disposal of employers, when work of an urgent kind had to be completed, when undertakings would otherwise have had to be suspended, or in similar cases, always provided that free labour could not be obtained for the purpose. Generally speaking, the wages customary in the district were to be paid to the military authorities for the labour in question. But, precisely for this reason, the employer was supplied with the labour without the obligation of pro-

viding for the keep, exactly as would have been the case if he had taken on free labourers.

2. *Payments made to the prisoners.* — As regarded the proportion of this remuneration, reference was made to the regulations of the military administration, which may be thus epitomized :

" A bonus may be paid to the troops out of the garrison funds, for special fatigue duty only, in cases in which the engagement of other labour would have meant expense, etc. Special fatigue duty must be reckoned on the assumption that the ordinary day's work is of at least five hours' duration. In a day's work there must be reckoned the time necessary for going to and coming from the place of work. The extra pay per hour is reckoned at five *Pfennige* for non-commissioned officers and half of this for privates "

The scale was consequently 2.5 *Pfennige* for every hour's work done as overtime after the five hours of daily work. As an incentive to a larger output, the scale might be increased up to 10 *Pfennige*, in accordance with the rate of special supplementary pay already given for harvest work.

These regulations of a general character were replaced a few weeks later, for prisoners of war employed in farm-work, by more detailed instructions. These required that the food which the employer was expected to provide was to be abundant and nourishing, in relation to the type of labour, and to consist at least of breakfast, a midday meal and supper (1). As remuneration for the work 40 *Pfennige* were to be paid, for each working day, to the military authorities. The obligation to pay the corresponding sum in money ceased in respect to each prisoner who replaced a member of the family away from the farm because called up. The pay itself might be reduced, or improved, and reimbursed at the altered rate by the military authorities to individual farm-owners or to several together, in case of financial difficulties, if, for example the guard had been an expense to them or if, in consequence of the rise in the price of food, there had been heavy expenses over the board of the prisoners. Such arrangements, however, could have no effect on the remuneration to be

(1) The detailed arrangements in regard to this were as follows : For the food of the escort a sum of 1.20 marks per head and per day is to be allocated ; for the food of the prisoners, 0.60 marks, besides 0.15 marks for the bread ration.

Whenever possible, the bread ration is to be supplied from the Commissariat, and in such a case the employer is expected to repay the authorities 0.15 marks. But the rest of the food must be provided by the employer. In regard to the quantity of food, the following regulations hold : the guard receive the daily bread ration to which the civil population is entitled — 10 grammes of coffee, 180 grammes of fresh meat or 120 grammes of bacon or 120 grammes of preserved meat, besides 250 grammes of vegetables or 125 grammes of rice, husked barley, or bran or 60 grammes of dried vegetables or 120 grammes of preserved vegetables, or 1,500 grammes of potatoes : or there may be given 750 grammes of potatoes and half a ration of vegetables and so on.

The prisoners of war receive the same food, except that for them the ration of meat is not given every day, but only alternate days. The bread ration is 300 grammes per day and per head.

given to the prisoners themselves. This was fixed at the rate of 30 *Pfennige* per day on an average for a day's work. And accordingly the reckoning per hour was dropped out. The scale of 30 *Pfennige* held good for average work done, but care had to be taken that the industrious worker received more and the indolent less. The payment of the bonus was a matter for the military authorities and it was paid out of the fund resulting from the returns from the work. The prisoner might have the immediate use of half of the remuneration assigned to him. The remainder was placed to his credit in a savings fund. The employer was allowed to grant to the individual prisoners of war, for particularly satisfactory pieces of work, small extra payments, in money, not in food, alcohol, tobacco, cigarettes, etc. These extra payments could not be given to the prisoners direct, but had to be given along with the other payments to the military authorities and credited to the prisoners.

By this it was established that the employers were to provide the maintenance as well as the remuneration of the work. As a matter of fact they showed more willingness in this respect than had been originally anticipated. This was the result of the policy of the food supply. Without the assistance of the prisoners of war it would not have been possible to provide for agricultural work.

The farmers were relieved of the burden of finding the food, in so far as they were reimbursed the sum of 60 *Pfennige* which was to be spent on the food supplied by them. In reality this was not a complete repayment, but only a contribution towards board, since the farmers had to spend a good deal more on the maintenance of the prisoners. They were constantly being asked by the military authorities to feed the prisoners of war as well and as abundantly as possible. Naturally 60 *Pfennige* was not enough for this, and the thing became more and more impossible, as the price of everything became higher and higher as the years went on (1). The farmers knew that it was in their own interest to feed as well as possible the prisoners who had to work for them. On the other hand the good treatment that the prisoners of war received in the country districts, particularly at the hands of the small occupying owners, was the occasion of much ill-will on the part of the public, since it was thought to be a great contrast with the privations that German people themselves had to undergo.

The original remuneration of 40 *Pfennige* was afterward reduced to 30 *Pfennige*, a sum corresponding to that which the military authorities expended in the small payment to the prisoners themselves. In this way the authorities got nothing themselves out of the payment received for the prisoners' labour. On the other hand the reduction or abolition of the

(1) This contribution for food was a concession which might have had unwelcome results. Thus at the end of 1915 it was feared that it might so act as to induce some farmers to dismiss seasonal labourers then on their farms and to put prisoners of war in their places. To avoid this danger, it was then laid down that the contribution towards keep that had given rise to all the trouble was no longer to be paid to the farmer who had so acted.

payment for labour originally allowed in the case of farmers who were particularly hard hit was done away with. But the communes were permitted to make themselves responsible for the money payments to be made to the prisoners, in this way rendering possible their employment on farms where a member of the family had been called away, or which, for other reasons, were faced with serious economic difficulties.

It should be remarked that the prisoners' labour came to be withal extremely cheap for the farmers. Besides the slender payment, which moreover the commune paid in certain circumstances, they were merely under an obligation to find the keep. And even this did not fall completely on the farmers, the military authorities paid an allowance towards the food that amounted to double the payment made for the labour. As to clothing, or any subsidiary requirements of the prisoners of war, such as medical treatment or attention, the military authorities took care of all that too. For insurance premiums against accident, disablement or disease, formerly a considerable addition to the cost of free labour, there were no outgoings. The equipment, arming and pay of the guard were also all undertaken by the military authorities, so that the employer had only to provide their food.

However the farmers went on lamenting that the labour of the prisoners of war, taking into account the high cost of their food and the fact that the output was as a rule less than that of free labourers, came out much dearer than the work of free day-labourers. Undoubtedly the prisoners of war did not accomplish as much work as free labourers, more particularly when they were inexperienced and not accustomed to agricultural work. But from this point of view much could be done by a careful selection. With this object, in the different prisoners' camps, with the help of experts appointed for the purpose by the Ministry of Agriculture, all with a good knowledge of languages, a selection was made of the prisoners who were suited for farm work and these were registered on special lists according to their occupations (ordinary day-labourers, men with a practical knowledge of farm-machinery, team-drivers, cow-keepers, vine-dressers, market gardeners, fruit-gardeners, etc.). These lists served as a basis for assigning each man to his proper job. In every commune, or at least in every larger commune, where prisoners were employed, an agricultural expert was nominated as advisor on questions relating to the employment of prisoners of war; he was to give advice as to the best way to make use of the prisoners of war, more especially when the employers were women left alone on the farm, in the same way as advice was given to orphans in questions which arose in connection with them; he was also to act as a permanent intermediary between the farmers, the military guards, and the competent officials.

No pains were thus spared to eliminate all the inconveniences inherent in the very nature of the labour of prisoners of war which were not of an absolutely insoluble kind. The most serious of these lay in the fact that the prisoners had to be guarded at every turn. This was a particularly troublesome hindrance in the way of employing prisoners of war for farm work;

carried on as it is over a wide area. The Commands of the concentration camps could not, of course, arrange for a guard for every prisoner sent out to work. It was already a great concession to assign prisoners in squads of only 30 men. But only the larger farmers were in a position to utilize as a body even such reduced squads. They were of no use to the small cultivators who urgently required the help of one or two persons. A solution was arrived at by a plan by which communes, districts (*Amtsbezirke*), or associations formed for the purpose, took these squads and arranged for dividing them up. The chairman of any such organization was regarded as the responsible employer and took upon himself the business of finding a secure place for lodging the prisoners and of seeing to sufficient and adequate victualling, also of arranging for the full utilization, each day, of their working capacity; he had besides to look after the collection of the money payments to be made to the military authorities. The prisoners could then be employed in smaller squads, or even singly within a radius of not more than 7 kilometres from their place of lodging. Naturally this separate employment presupposed that the employers would take upon themselves the duty of guarding the prisoners. They had to provide at their own expense the guard necessary to supplement the soldiers told off for the discharge of that duty; such assistance was given by trustworthy civilians, who were accustomed to bear arms, such as forest rangers, members of veterans' associations and rifle clubs, communal police, field watchmen, and in case of need, even wounded men discharged from the army. The civilian guards were to assume the custody of the prisoners (following the instructions of the military guard under whose surveillance these had been placed) in the place of employment and during their transit to and fro. It might be allowed in exceptional circumstances that small separate groups, under the oversight of a guard of proved trustworthiness, might pass some nights at a distance from the Command, on the premises of individual landowners or in the smaller communes. The provision was added that no prisoner must remain unwatched at any time. It was of course impossible to carry out this regulation literally, especially where the prisoners were working separately or in pairs with individual farmers, as often happened in districts where there are small holdings. It was inevitable that from such places prisoners often escaped. The employers were accordingly frequently warned that the best way to prevent prisoners from wishing to run away was to treat them well and to feed them well. On the other hand new difficulties arose when the relations between employers and prisoners became too cordial. There were repeated complaints that the prisoners were frequenting the inns, although that was strictly forbidden.

The Russian prisoners were most sought after as farm-labourers. They were familiar with the work, made no great pretensions, and — greatest advantage of all — did not try to escape. They were less prone to wanton destruction of property and to incendiary acts than prisoners of other nationalities. On the frontier districts only Russians were available. When after the departure of the Russian forces, the work of reconstruction of the

devastated territories began, the Commander-in-chief for the East requested that Russian prisoners should be employed, because "the transfer of persons from Western Europe into localities practically completely destroyed, together with an unaccustomed style of feeding, might easily bring about unwelcome consequences". Seeing that the agricultural conditions were entirely different in the territories east of the Vistula, it would have been desirable to employ only Russian prisoners there. This explains how it was that notwithstanding the great masses of Russian prisoners taken by the German army, the full number demanded were not put at the disposal of agriculture. But also as far as prisoners of other nationalities were concerned, they became less and less available, because from the autumn of 1916 they were employed in increasing proportion in industry. It was a serious blow to agriculture, especially in the eastern provinces, when after the Peace of Brest-Litovsk, the Russian prisoners regained their freedom. They displayed a growing disinclination for work, and an increasing unlikeness, they demanded more food and cases of absconding became more and more frequent. This behaviour was encouraged by the privileges that had had to be accorded to them on the basis of the agreement with the Russian government.

The same account of the prisoners' labour may be given as that sketched in the preceding section; there too the ground was already undermined before the revolution brought the final catastrophe in its train.

It would be well to be able to ascertain the number of the prisoners employed in agriculture. But all research on this point has been fruitless. It is possible that there are no returns of any kind on the subject. The different prisoners' camps, the constituents of which were always changing, sent out men as they were available and withdrew them again, if they were urgently needed in other places or if it was advisable for other reasons. The sole statement we have is one which was made at a sitting on 17 April 1918 of the War Committee of German Agriculture. It was there stated that there were at the time in Germany two million prisoners of war, of whom about 900,000 must have been employed in agriculture and 400,000 in industry. Even this statement would appear to be merely an estimate. However it may be deduced from it that the prisoners constituted an important part of the male labour employed during the War. This deduction is confirmed by the observations that anyone who went into the country during the War could make for himself.

§ 5. GRANTS OF LEAVE FOR FARMERS AND AGRICULTURAL LABOURERS UNDER ARMS IN THE GERMAN FORCES.

Although the assistance rendered to German agriculture by foreign labour—seasonal labourers and prisoners of war—was both considerable and very valuable, it was far from meeting all requirements. In the first section of this article we have already shown how relatively small was the number of male farm workers in the country districts. The majority of these, and particularly the strongest among them, were called up. The

small farm, were most affected by this. Those of larger size availed themselves of seasonal migratory labour and later of the prisoners of war. On farms worked by the farmer and his family the man called up in most cases was the sole able-bodied male who had worked on the farm. There were also women and other members of the family who took part in the field work, but these supplies of labour too -- as has been seen -- were already utilized to a considerable extent. They were certainly able to carry on the work of the farm, and cases of farms being completely abandoned were rare; what the German women of the peasant class were able to do during the War was most admirable. But undoubtedly the farms could not but suffer seriously from the absence of the farmer himself. More especially in the busy times, at the time of the spring cultivation and in that of the harvest, the difficulties were great, difficulties which not only affected individual farms and separate families, but also the whole community, in so far as the feeding of the country depended on the proper working of the farms, and with that the very existence of the nation.

The military authorities were soon fully aware of this, and it should be recognized that they did all in their power to promote agriculture. Thus with this in view provision was made for granting leave at the time of the spring sowings and at harvest to as many as possible of the farmers and farm-hands then under arms. Farm managers, employees on agricultural estates, etc., who could not be replaced or not without much difficulty by the labour of foreigners, in so far as they were not attached to a unit on active service, were for the most part granted leave; nor did the military authorities hesitate to allow persons who were fit for service to remain at their farm occupations. All this went on in conflict with the exigencies of the military situation. It was a continual struggle; on the one hand the Supreme Command needed all the men fit for service to defend the country, threatened as it was on every side; on the other hand, the people, and with them the Army, were doomed to perish from hunger if the productive capacity of agriculture were lessened; the more men were taken from the plough, the more had to go on leave, long or short, at certain times of the year.

When War broke out, the cereal harvest was already in progress. This could be finished without much difficulty, as not all the men fit for service were called up at once. The mobilization lasted for weeks. In the enthusiasm of the crisis, those who were not yet called up and those who were left behind gave redoubled energy to their work. And where there were too few pairs of hands, the neighbour came to the rescue. The season was favourable. There were greater difficulties in the lifting and storing of the potatoes and sugar-beet. But by that time the first batches of prisoners of war were arriving and they gave the necessary assistance. The managing staff of the farms, the milkers, drivers of motor-ploughs, mechanics in charge of agricultural machinery and of machinery driven by electric central power, employees engaged in the management of industrial undertakings in connection with agriculture (potato-drying factories, distilleries, starch and sugar factories), and the foremen belonging to the territorial militia (*Landsturm*), were called up last. The representatives of the General Command

had been authorized to see to the sending back on leave of men of the *Landwehr*, the *Ersatzreserve* and the *Landsturm*, independently of their occupation, when dictated by the State interest or consideration of general utility. They were thus in a position to take into favourable consideration applications for release of men from service on the part of the farms.

In order to ensure the spring sowing grants of leave were made on a large scale to farmers and farm-hands who were in the reserve divisions. About one-fifth of the total man power of these divisions was sent on leave. The applications for leave on behalf of men who were at the front of course were not entertained. In so far as the men sent on leave were unattached labourers (not tied to any particular farm), the employer was to supply them with good food and lodging and a wage of two marks per day's work, as well as the journey money from their unit and back. When the leave for the farm-work had expired, there was to be given, by way of a check, a certificate of the due accomplishment of the work, the intention of the military authorities being that the leave was to be utilized to the full for the benefit of agricultural production. As in the spring of 1915 the labour of prisoners was already well organized, it was possible to carry out practically the whole of the current work, even though the way in which the grants of leave were given and made use of did not exactly correspond to expectations and gave rise to complaints that had some foundation.

For this reason they began as early as May 1915 to arrange the grants of leave for the reaping "so that the supply of labour for this important task might be furnished more regularly and more promptly than had been the case in the spring". This time it was felt there ought to be no hurried exchange of letters and telegrams between the civil and the military authorities and between these and private persons all on the very eve of the performance of the necessary farm operations. The Provincial Councils, the burgomasters and the mayors of communes were to report as to the need and to go thoroughly into the question of whether or not applications for grants of leave to the mobilized members of a family could be entertained. It would be impossible to count on men in combatant units; perhaps applications in respect to these should not even be forwarded; on the other hand it would be feasible to grant leave for work of the kind to soldiers belonging to the reserves. The exact time from which the leave would date would have to be fixed in accordance with the geographical position and climate of the place of employment and would have to be indicated, in accordance with these considerations, in the applications for leave. For small and medium-sized farms grants of leave of two and a half to three weeks in duration would be enough. Generally speaking it was laid down that, in so far as they were available and always provided that the exigencies of the service allowed it, farm labourers, inspectors, managers of farms, landowners, etc. might equally be sent on leave, if applications were made for them by the Provincial Councils. Convalescent soldiers were also granted leave for farm-work from the convalescent hospitals. Towards the end of the summer of 1915 it was arranged that leave for a maximum duration of three weeks could be granted to men of the reserve units and

the battalions of the *Landsturm* who were on German soil, if previously engaged in agricultural occupations, such leave to be granted for the operations of lifting and storing of potatoes and beetroots.

There was in 1915 no question of the sending back of the men called up. This was a year of the greatest military efforts and of unexampled successes. Every German looked forward to a speedy peace. Besides there were not yet called up so many men as in the succeeding years of the War. Some farms however were hard hit by the fact that even so early there had begun to be mobilized the farm-labourers, the farm-managers and the landowners who belonged to the territorial militia.

From the beginning of 1916 difficulties increased to a remarkable degree. By this time a serious food shortage began to be felt, whereas before there had been short supplies, but not yet an absolute lack of provisions. Economy in the food supply thus became one of the principal branches of war economy. The War Provisioning Office was formed and a very capable head was found for it in the person of First President of East Prussia, Von Batocki. The greatest care had to be given to the maintenance and increase of agricultural production.

"No piece of land must remain uncultivated"; such was the order of the day. Once again arrangements were made for the granting of leave on a considerable scale for the spring sowings, for the harvest and for the autumn sowings. The representatives of the General Command put out a statement, after consultation with the competent Ministers, entitled "Main Principles for the Organization of the Spring Sowings". The following points among others were laid down: there was to be no relaxation of effort over the spring sowings, which were to be carried out with all the means available, and with that object the civil and military authorities concerned were expected to prepare a systematic scheme. An accurate report of the area of lands to be sown, of the male and female labour and of the draught horses available, together with a statement of the extent of the shortage in available labour whether human or animal, was to be drawn up by the communal authorities and to form the necessary preliminary to their work. The deficiency in male labour had to be made up in the following ways:

1. By immediate grants of leave and prolongation of leave of landowners, farm managers, farmers, viticulturists, farm-hands and vinedressers, blacksmiths, carters, and other persons indispensable to the work of the spring sowings and the tillage of the vineyards, who might be in the reserve divisions and were fit for garrison duty or for employment on works (1).

(1) In time of peace there were only two classes, fitness for active service and fitness for garrison duty: at the time we are speaking of there were three, namely:

1. fitness for service;
2. fitness for garrison duty;
3. fitness for employment on works.

"Fit for active service" meant those liable for military service, passed as fit for service in the fighting army;

2. On the calling up of the class of those born in 1897, in the spring of 1916, those employed on agriculture were not to be mobilized before 1 May, and the same applied to those composing the younger and the older classes of the *Landsturm* not yet called up.

3. By means of leave grants to non-commissioned officers and privates in reserve divisions, companies of convalescents, reserve convalescent hospitals, etc. Applications for leave for soldiers on active service had to be reduced to a minimum, as also applications for those belonging to mobilized battalions of the *Landsturm*; for such applications there had to be a very careful enquiry into the urgency of each case. It was however within the powers of the commandants of mobilized troops, even apart from requests of the local authorities, to grant leave to cultivators within the limits dictated by the military exigencies.

In view of the importance of the object of the leave, disciplinary measures did not involve its stoppage. As a rule 14 days to three weeks was considered long enough for a leave period. The special attention of the local authorities was called to those farms, particularly small farms, the owners or occupiers of which had been taken prisoner, wounded or killed, so that they were left without male labour. Provision for these farms was first of all to be made. As everyone puts in his best work on his own farm, it was considered advisable to send back the men as far as possible to the places where they had formerly been employed. When leave was granted for the sowing on land belonging to strangers, it was necessary to make it clearly understood that the work was being done in the interests of the country and it was therefore a service and not a way of earning money.

From these and similar ordinances it results that leave for agricultural work was to be regarded not as a favour, but as "service".

When in the hay and cereal harvest of 1916 early and prompt carrying and stacking seemed to be specially necessary, the Ministry of War ruled that where the grants of leave were not likely to ensure the desired result, provision was to be made for requisitioning the labour that might be necessary to fill up gaps in the supply of labour. The potato crop in particular of that year appeared likely to prove a failure. The representatives of the General Command were accordingly once again requested to draw the attention of all the military depôts once more to the fact that it was not only the duty of every commandant, but also a matter of the utmost urgency in respect to the food supply of the Army and of the nation at large, to render assistance by every means in his power.

"Fit for garrison duty" meant those liable for military service, passed as fit to fulfil military duties in garrison (e. g. guard duty, escort duty, military instruction duties, etc.).

"Fit for employment on works" meant those liable for military service, not fit for military service proper, but likely to be useful if detailed for fortification making, or in an occupation similar to their civil occupation (office work, handicrafts, etc.).

The assignment to one of these three groups was not fixed once for all, but took place as the result of medical examinations held periodically. In the course of the War, with the gradual reduction of the army reserves, a considerably lower standard of physical fitness for war service was adopted as time went on.

Further when any commandant had reason to believe that within the area of his own command the supply of labour available for agriculture was adequate it behoved him to consider whether he could not do something towards assisting neighbouring districts. The gravity of the outlook for the potato crop explained the threat made of seizing and gathering the tubers at the expense of the farmers who had neglected to carry out the work with the necessary despatch.

At the end of that difficult year, 1916, the German government was in a position to state with satisfaction "that up to the present time all the land capable of being turned to account has been cultivated, with the result that although they were in more favourable conditions, the enemies of Germany had no cause for exulting over her" (1).

Such was the situation, although an increasing number of men liable for military service was being withdrawn from agriculture.

On 1 March 1916 the Minister of War issued a proclamation according to which every man fit for active service must be sent to the front. "Every man fit for active service, and withdrawn from the fulfilment of his duty, means a weakening of the Army and a postponement of victory. Whoever without need withdraws one single man fit for active service is guilty of an offence against the country. The military authorities are aware of the great difficulties that employers find in releasing skilled workers who are fit for active service and replacing them by less experienced labour... But very often this is much more feasible than appears at first sight. No one is irreplaceable; it is merely a question of degree of suitability. Persons fit for active service — and this is proved by very wide experience — can be replaced to an extent beyond belief or expectation by other sources of labour, if the employer, under a conviction of the gravity of the crisis, omits nothing to attain the end in view. Whoever really looks into the matter will find that it is nearly always possible to replace them by labour that is exempted from military service, as for example that of women; by making use of this labour he will ensure that the farm-work is carried on with a certain stability and regularity, free from liability to the disturbance caused by the calling up. When all attempts to procure labour exempt from military service have proved fruitless, then and not till then, there may be taken into account applications for exemption of persons liable for military service, that is to say of those fit for garrison duty or for employment on military works, not even then of those passed for active service. In so far as may be compatible with military interests, applications will be granted for the sending back to civil life of men fit for garrison duty and for employment on military works... Before making application for a man liable for military service, each one must go seriously into the question as to whether it is not on the other hand possible, in spite of the inconveniences and difficulties, to allow any persons liable for military services who may be still working on the farm to join

(1) DEUTSCHER WIRTSCHAFTLICHE MASSNAHMEN AUS ANLASS DES KRIEGES, ZEHNTE NACHRICHT VOM 5. MÄRZ 1917, page 4.

their units. Let him who thinks this too burdensome a charge reflect on the sacrifice of our brave troops out there, in face of the enemy . . . ”

It was precisely in agriculture, of course, that it was not possible to follow out literally the principles laid down in this proclamation. The shortage of male labour was too great, and it was impossible to employ women in a larger proportion because they were already engaged in agriculture up to the limit of their powers. A few weeks after the issue of the proclamation, the Ministry of War was obliged to recognize that since it was not possible to meet the requirements of agriculture by detailing prisoners of war for the work to the required extent, recourse must unavoidably be had to men belonging to the forces to supply the deficiency of labour. But from the moment that this unwelcome method had to be adopted, it seemed a matter of great importance that agriculturists should be the ones selected to supply the shortage of labour. The cultivator would be undoubtedly the person of the greatest possible use at this crisis in the national economy. On the other hand it was necessary that agriculture should not any longer retain for itself supplies of labour that, from training and experience, might render more valuable service to the commonalty in industry.

In a general way it came to be recognized that for every more extensive farm and for every group of smaller ones there had to be a managing staff and an adequate number of farm hands to give the necessary assistance. Persons suitable for such work, in so far as they were passed for garrison duty or army works only, were, at that juncture and later, sent back to civil life without further question. In cases of necessity grants of leave and also exemptions were given to persons fit for active service, seeing that on farms the cultivation of which was “of public concern ” (and such was nearly always more or less the state of the matter) the farmer, or his representative, was in the first instance the one who had to remain on the spot. But the question had to be gone into, case by case, whether it might not be possible, by entrusting to one farmer the management of several farms, to render available for the call-up men fit for active service. And it is difficult to suppose, considering the individual attention and care required to manage any one farm, even the smallest, that any remarkable results would be attained by such a system, based on the “principles of the community of labour ”.

When finally in the course of 1916 the applications for the return of agriculturists passed for active service increased in an unprecedented degree, and on the other hand an increasingly large number of men were wanted for the front, the whole scheme for permitting return for the requirements of agriculture was regulated in a uniform and systematic way. The district commandants had to ascertain in their own districts the number of agriculturists in the area fit for active service but returned from their units and then to send up to the Provincial Councils the lists of these, kept up to date and drawn up by parishes. From these lists the Provincial Councils could arrive at a clear idea as to how many agriculturists fit for active service there were in their district, and had to put a mark

against those men on these lists whom they considered to be available for the call-up indicating in each case whether the man was regarded as available with or without replacement by another person. When replacement was not necessary, the man could be at once called up; in the other cases those in question were rendered available for the army by an exchange being arranged between them and agriculturists fit for garrison duty or for army works, who formed part of the home forces. The reserve units had to compile lists of these latter, classified by districts, for sending up to the Provincial Councils. The Councils, exactly as they could ascertain the number of men in the district fit for active service from the lists submitted by the District Commands, equally could tell from these lists of men fit for garrison duty or army works as drawn up by the reserve units, which agriculturists of their district belonging to either of these categories were still in the home troops. They could thus decide definitely how many and which persons were to be taken into consideration for the purpose of making an exchange. Before the calling up of any agriculturists, the District Command had to advise the Provincial Council, so that the latter might at once nominate a substitute on the basis of the list of persons fit for garrison duty or army works. But the calling up did not have to take place immediately, but only after the substitute had had a certain margin of time to become initiated into the work of the farm.

This decree presupposed that a sufficient number of farm-labourers fit for garrison duty or army works were actually in existence to be put in this way to replace the others. But this assumption was not always supported by the facts, since precisely the least fit of those liable for military service had been already sent back in large numbers, and not only when they were farmers or managers of farms. Also in other cases, the farm labour fit only for garrison duty or for army works had been sent back very freely. In the summer of 1916 it had already been stated that the prolongation of the War and the forced increase in all fields of subsidiary military service made unlikely any return to economic life of any man fit for garrison duty or army works. In the future these classes too would only be sent back in cases of urgent need.

As had happened before, the available resources did not meet the case. Accordingly another reserve supply had perforce to be found if the necessary labour were to be obtained. And in fact on 5 December 1916 the Law on Auxiliary Service appeared. "Every German citizen from the ages of 17 to 60, not otherwise called upon for military service, is expected, for the duration of the War, to furnish auxiliary service to the nation." Such was the wording of paragraph 1 of the law. Young and old were to be put at the service of the national economy, so as to leave available for military service every possible one of those who were fit for active service. Undoubtedly the auxiliary service for the country was of high moral value, and also had great practical importance for many branches of the economic life of the nation. But the advantage to agriculture was bound to be less than was anticipated, from the fact that young and old had already been at work in it for a long time. And since by the wording

of paragraph 2 of the law all persons had to be counted as engaged in the auxiliary service of the country who were at work under the authorities, for official bodies, in war industries, in agriculture and forestry, in the care of the sick, in any organization for war-economy, or in any other occupation or undertaking of direct or indirect importance for the purpose of the conduct of the war, or of the national food supply," this auxiliary service for the nation was thus in the country districts already being rendered to a large extent. Indeed the danger was rather that the introduction of the compulsory auxiliary service would be followed by the withdrawal from agriculture of these sources of labour, and for that reason the decree enacted that persons liable to the auxiliary service, who previous to 1 August 1916 had been occupied in an agricultural or sylvicultural undertaking, might not be detached from such occupation and assigned to any other included under those regarded as auxiliary services. At best the towns might have supplied agriculture with a few helpers from among those bound to give auxiliary service. But it would have been hardly possible to reckon on a large influx of labour from this source, although it must be admitted that the organization of "boy squads" — initiated as a matter of fact before — received a considerable impetus from the Law on Auxiliary Service.

Accordingly even after this it was necessary to assist agriculture in the same way as in the past. It is true that at the beginning of March 1917 it was said that the carrying out of the Hindenburg programme made it doubtful if the military labour essential to the spring tillage could possibly be granted. The farmers would thus have had to find the equivalent in the shape of persons liable to auxiliary service, and in the event of there not being a sufficient number of voluntary proffers of service, measures of coercion would have been inevitable. But as a matter of fact the grants of leave had to be made again on a large scale. It happened that the spring cultivation that year suffered in consequence of loss of time due to the unusually late and prolonged frosts. The War Office accordingly ordered that in case of need there should be placed at the disposal of the farmers, without delay, all the troops and all the horses belonging to the reserve units that could be utilized and that were not absolutely indispensable to the reserves themselves. The Provincial Councils, in view of the fact that the difficulties of provisioning the nation were becoming more and more serious, were invited to submit, with a view to immediate recall of those concerned, the names of persons now mobilized who might, if leave were granted them, be able to do much to save the critical situation with all its difficulties. The class of those born in 1898, a class hardly yet mobilized, had to be detailed for agricultural work; even the recruits under instruction had to be granted leave. For the harvest, the grants of leave were extended in a way hitherto unprecedented. Grants of leave had previously been given, for the most part, only from the reserve units; now they had to be extended even to the troops at the front, and to those stationed at the dépôts on the route of march. The Supreme Command agreed to send on leave 5 per cent. of the fighting force — but only from

the comparatively quiet sectors of the front — and ten per cent. of the troops in the route depôts and belonging to the headquarters staff. This entailed, naturally, a serious loss in the fighting power of the troops of the first line, but "the military interests must be temporarily subordinated, as compared with the necessity of providing for the food supply of the nation." Staff required to work threshing machines had to be sent on leave without restrictions of any kind. This last provision bore relation to the fact that in this year it was necessary to organize a scheme for early threshing by means of soldier labour.

This early threshing scheme was an important factor in the provisioning arrangements. Already from a return made in February 1917 of the available quantities of bread-stuff cereals, it had appeared that the existing stocks were less than had been estimated on the basis of previous returns. The shortage was now two million tons. An attempt was made to make the reserve stocks last longer by means of a higher flour extraction and a reduction in the bread ration. But these measures were not enough to make up the deficiency. Nor was the additional supply that could be obtained by importation from the conquered districts of Roumania sufficient for the purpose. Steps had to be taken to guard against old stocks being depleted before the grain of the new crop had been threshed. In such a case Germany would have been left for several weeks entirely without bread.

Accordingly it was a matter of great concern that the threshing of the new crop should begin as early as possible. As an incentive to the farmer, threshing bonuses were given for consignments in advance of a given date. The earlier the threshing was done, the larger the bonus was to be (1). But this was not by itself sufficient. The early threshing had to be made mechanically possible, and this especially in certain districts of Germany where the cereals crops ripen earliest. Generally speaking, threshing only begins in the second half of August, and this was too late in view of the situation that had come about. It was remembered that there were in Germany districts where, as the result of their favourable position geographically, cereals could ripen and be harvested early. Everything turned on its being possible to thresh early in those districts. This could not have been accomplished with the farm labour alone. All preparations were made well in advance. Three thousand threshing machines, in part requisitioned from those territories the geographical position of which did not allow of early threshing, were put in order and equipped with all requisites, coal, petrol, belts, engines, etc. The owners of generating stations were obliged to hand over their installations and their electric current. When the day of harvest came, it was an easy matter to put everything in train. The military authorities detailed 40,000 men and all the horses and the motor lorries that could be dispensed with. The young

(1) For the consignments in advance were awarded:

Before 16 August	60 marks the ton.
" 1 September	40 " " "
" 1 October	20 " " "

people gave zealous assistance. The success that had been hoped for followed. Enough grain was threshed in good time, so that the normal supply of bread did not fall off even for a week. Further the danger that, as a result of too early a carrying or threshing of the cereals, large quantities would be spoiled was avoided, inasmuch as that adequate drying machinery was provided for such quantities of grain threshed early as could not be immediately passed to the mills for grinding.

Remarkable as was the work accomplished by the organization of the early threshing, it also showed clearly what difficulties those in charge of the provisioning during the War had to combat. In the next year, 1918, the same organization had to be repeated, with higher bonuses for the early threshing; and generally all those measures for securing supplies of labour that had proved of value in the year before were put into force again. It is unnecessary to go over them again now. But it became more and more difficult to carry on the necessary agricultural work. To all the other hindrances there was added the competition of the war industries. The high wages paid in these occupations had an immense attraction for the depleted supplies of labour still left in the country districts. To prevent an exodus of this kind measures had to be taken which were in effect a strict limitation of personal liberty. Already a minute defining the execution of the Decree on Auxiliary Service dated 30 January 1917 stated that employers were liable to penalties if they employed a person under obligation for auxiliary service without first having received from the former employer a certificate of discharge. At the beginning of 1918 there was a further regulation: persons of either sex engaged in agriculture were prohibited from passing on to an occupation other than one connected with farming or forestry without written local police authorization. In the same way, in the rural communes, the youths who had not before been in a situation could not accept, without such authorization, any occupation other than one of the above. Besides this, every person of either sex was obliged, if so required by the competent authority, to furnish for the usual wage obtaining in the locality, farm or forest work in accordance with his or her powers and capacity, provided that it could be done without serious detriment to his own interests. But such demands were not to be made except when it was a question of work absolutely necessary to ensure production: in particular the work of tillage of the fields and gathering of produce. It was understood that it might be necessary to do such work on Sundays and feast days (1).

(1) In the spring of 1917 when the unusually late frosts had much delayed the farm work, it had been proposed to introduce the practice of working on feast-days in the country districts. The Minister of the Interior gave permission for working on Sundays and feast-days, but he did not accept the principle of the obligatory nature of work of feast-days, which would involve penalties for those who did not work.

However the Ministry of War ordered that prisoners of war could be required to do work on feast-days. Also the representatives of the General Command were requested to issue orders making it impossible for labourers, especially foreign migratory labourers, to refuse to work on feast-days. Further the Minister of Education was requested to induce the ministers of religion to pronounce in favour of carrying on work on feast-days.

§ 6 ASSISTANCE GIVEN BY JUVENILE LABOUR.

Although the assistance given by juvenile labour was not of great importance, quantitatively, to agriculture, its high moral value justifies separate treatment of this part of the subject. The young people represented the final reserves of labour that Germany could draw on for her agriculture.

The school boys and girls from the older classes were already accustomed to give some help with the farm work. Especially at harvest time, and for the lighter part of that work, they had had to help. It was natural that this should continue during the war and indeed that children's labour should be even more in request. Already in the first year of the war the Minister of Education had arranged that the older scholars, at their parents' request, might be temporarily excused school attendance so as to help in the carrying out of the field work. Similar arrangements remained in force during the whole time of the War. At the beginning of the third year of the War the older pupils in the secondary schools might also be excused from school temporarily. A certain amount of juvenile labour was thus rendered available for agriculture at the busy seasons; but as a rule there was no question of any novel departure. For the most part those concerned were the sons of the farmers and of the country people who, on the express request of their parents who had reason for employing them in some work of an urgent kind, were excused attending at school for a definite period.

A distinction must be made between this kind of child help and the real "juvenile assistance" (*Jungmannenhilfe*), in so far as this latter came about through the medium of associations with a military organization. The "Juvenile Companies" formed in particular of the pupils in the town intermediate schools (*Gymnasien, Realgymnasien, Ober-Realschulen*), were formed on a large scale only during the War. Immediately after the outbreak of War, the German youth pressed forward to put itself at the service of their country menaced as it was with danger. The boys who were still too young looked on with enthusiasm while their brothers and older schoolfellows left school to enrol voluntarily in the Army. They too wanted to be soldiers and even their games reflected their future calling. They formed squads, they drilled, they went through military instruction, dug trenches, imitating what they saw their elders doing. Before long there were forthcoming officers and non-commissioned officers ready to instruct these volunteer squads, and thus grew up everywhere juvenile corps (*Jugendehren, Pfadfinderkorps*, etc.) who in the afternoons after school and on holidays tried to adapt their games to the gravity of the crisis.

Very soon there were found to be tasks in which these well disciplined squads burning with enthusiasm could be employed, such as messenger work, house to house collections, and the like. The juvenile corps were sent out on agricultural service first in the Rhine Province,

where boy squads with a military organization were able to give effective help to farmers as far back as the harvest of 1915. The following year this was repeated on a larger scale and the results were so good that, after the introduction of the obligatory auxiliary service, the Minister of War, on the basis of the experience gained in the Rhine Province, decided to organize and utilize everywhere these juvenile corps. In the spring of 1917 the same Minister drew up "Fundamental Principles for the Organization of Boys (high school pupils) for the Benefit of Agriculture," published in pamphlet form and afterwards completed in detail. The following points may be abstracted:

1. "The organization of boys for the purpose of giving help in farm work is entrusted in the different provinces or States of the Confederation to the War Economy Bureaux. It is not essential that the organization should be of strictly military type, though following military models and adopting military discipline. In all the localities where there are intermediate schools, a responsible person must be nominated, from among the masters, on whose initiative everything shall rest. All school organizations already existing (preliminary military training course, scout, athletic or gymnastic clubs) hand over their powers for the cropping season to the competent War Economy Bureau.

2. "Boys sent into the country are placed under a leader who acts in strict accord with the responsible head mentioned. The person most suitable to act as a leader is a head master or a master who has been in the army and is acquainted with military regulations. Disabled men, however, on discharge from the army may also be employed as leaders. As far as possible the boys should work in complete squads under the direction of a leader. Even if they are assigned individually to farmers they must still be under a leader. The school-boy must understand that he belongs to a certain command and is not merely a boy put at the disposal of a farmer. As far as possible the boys must live together and take their meals in common. In villages they should be housed in barracks, so that they may proceed together to work in the morning — each to his own employer — and may have common meals and a common life.

3. "The communal federations are, in return for payment, to place the necessary food at the disposal of the employers. The chairman of the War Food Supplies Bureau directs the Government to assign to the boys the same rations as are allowed to farm labourers and declares his readiness to supplement the food in those districts where, contrary to expectation, there proves to be difficulty.

4. "As a general rule, the boys receive no pay for the auxiliary service they gave to agriculture. To meet wear and tear of clothes and boots a suitable allowance will be made, when they are wearing their own clothes. If clothes and boots are supplied no charge is made. There is no objection to a small allowance of 1.50 marks per week being given to each boy.

5. "The employers must provide board and lodging free. In addition they pay to the leader for each day's work one mark per boy under him.

The weekly allowances above-mentioned are paid out of this sum and it also covers expenses for clothes. Out of it too are paid the private insurance against accident and the State insurances against sickness, accidents and disablement. Any surplus will be pooled and used later to the best advantage for the boys."

Such was the organization for the employment of juvenile labour on farms. For it to be of real value to agriculture, it was obviously necessary that care should be taken to send only suitable boys for the field work; otherwise the organization, viewed by many farmers with a certain distrust, would have been discredited from the first. It was essential that the selection of the boys should be made with the utmost strictness; only those should proceed to the country who, by physical constitution, character, strength of will, and trustworthiness, were from every point of view suited to the work they were undertaking. It was relatively easy to establish the physical fitness by medical inspection; this matter was left in the hands of the army doctors.

It was proposed by the Ministry of War that all scholars should be inspected, and classed, as the result of the inspection, into three categories: (a) fit for employment in farm work; (b) fit for clerical work or guard duty; (c) fit for messenger and similar service. By a further medical inspection of the boys on their return from the country, it was hoped that valuable data would be obtained as to the effect of regular physical occupation on the development of the adolescent. By the exclusion in the first instance of scholars physically unfit for the work, the farmers were spared much disappointment. It had to be borne in mind that with these better class boys, unused to physical labour, the first enthusiasm might easily be succeeded by slackness, if the sense of duty and moral energy did not form a counterpoise to the unaccustomed effort and the unusual surroundings. Many of the boys though passed as physically fit were seized with homesickness and became of no use in the work, except when their sense of duty and their parents' exhortations sufficed to carry them over the first crisis. For it was no light thing that was asked of these boys. In the first week of work, the back was bowed under the unaccustomed toil. But the severity of this first fatigue, which in the eyes of the regular farm labourer seemed like weakness, was merely the consequence of excess of zeal and of a natural reaction after the irksomeness of the school desks. Most of the boys won through this. The muscles hardened and weariness was overcome by force of will. And when success did not follow, it was not always the boys' fault, but the wrong work had been given to them. The President of the War Office (*Kriegsamt*) in a proclamation pointed out to the farmers that in agriculture as in offices or in industry a systematic allotment of work must be made. "The heavy work should be assigned to the prisoners, the lighter tasks that are easier to learn how to do to our German lads . . . The division of labour is the first prerequisite for the proper employment of juvenile labour. Moreover the sons of the rustic grow into the heavier work by degrees, year by year. Town boys must also have time to get used to it. Every one in his right place and the thing

is done." By putting the boys to work that needed less physical effort and less technical capacity, such as digging, weeding, sorting potatoes, etc., the country people with their greater strength were left free for the harder work.

The value of this labour supply was much greater when the boys had had a certain preparatory training in the more important kinds of farm work before being actually employed in the country. Hence courses of instruction were instituted in many places. The War Economy Bureau of the Rhine Province indicated the lines these courses should follow. They would have to cover :

1. Ordinary farmyard work.
2. Field and garden work.
 - A. Spring cultivation.
 - B. Harvest work.
 - (a) The cereal harvest.
 - (b) Lifting turnips and potatoes.
 - C. Autumn work.

"Instruction with practical demonstration is given in the management of draught animals and other live-stock, and besides in harnessing and unharnessing, in driving the plough, the harrow, etc. As regards the feeding and care of domestic animals explanatory lessons are as a rule all that is required. Then under the direction of town gardeners, of practical horticulturists, etc, practice is obtained in digging, weeding, planting, pricking out of seedlings, etc. Expert instruction must also be given on the chief points relating to the principal types of machines employed in agriculture (ploughs, harrows, rollers, seed-drills, manure-spreaders, and the like), with practical illustration. The first course naturally relates to spring cultivation only. Courses on harvest work will come next. There will be special courses for thoroughly trustworthy and suitable lads in the management of seed-drills with a view to training them for employment on large farms."

At the beginning of the last year of the War these courses were instituted generally, and instructors in agriculture were in charge of them. It then proved that those students who had already been some time on the land — and unfortunately their number was not large, because in the meantime many had been called up — were preeminently at the stage to profit by advanced instruction. Thus in the Province of Saxony it was possible to arrange for instruction to be given to specially selected pupils in the driving of motor-ploughs, an operation for which the ordinary labourer has not the necessary general education.

With the passage of time juvenile labour proved to be remunerative. Even in 1917 organization of the early threshing was based entirely on the employment of this kind of labour. According to information given by the War Food Supply Bureau, 60,000 boys must have been brought in to do this work; this was a really considerable contribution. Juvenile

labour was employed in farm work not only within the country, but also in occupied districts.

After the good results achieved in 1917, measures were taken to organize juvenile labour on a much larger scale for the next cropping season. Since it seemed more and more difficult to place at the disposal of agriculture men drawn from the front or from the territorial army, it was essential there should be for the spring cultivation of 1917 a large army of boys, well trained, effective, and well disciplined. The War Office informed the farmers that gangs of prisoners of war would only be supplied to farms where at the same time a suitable number of boys were employed. People thus began to reckon on the assistance of juvenile labour as an essential part of the labour supplies for agriculture. But as in the autumn of that year the armistice was signed, this scheme never materialized.

* * *

At the beginning of this article the problem was stated: how could it happen that the German people in the midst of all the difficulties of a war prolonged over four years against an enemy numerically superior, succeeded in maintaining agricultural production, and thus the sinews of a national economy severed from all connection with the outer world, while all the time the chief part of the male supplies of agricultural labour had been called to the colours? We think that we have found an adequate answer to the question. In the first place German agriculture had the good fortune to be able to make use of aid given by the enemy countries themselves, in the form of migratory labour retained in Germany or recruited in the occupied territories, and in that of the large numbers of prisoners of war put to farm work. In the second place the military authorities organized large schemes of assistance, granting leave liberally for the periods of intensive farm-work and even making provision of the means of production. In the third place aid was given, if only on a small scale, by the town population. And finally — and this was not the least important factor though instanced last — those who were left behind, the young, the old and, more than all, the women of the farming families, used every endeavour to replace the missing male labour by exerting themselves to the very utmost.

It was not of course possible to maintain the production at the level of peace time. Neither in quantity nor in quality was the replacing labour equal to that achievement, becoming as it did, as the War went on, less and less adequate to the emergency. There was besides an increasing scarcity of the most indispensable means of production, a want of draught animals, a want of fertilizers whether natural or artificial, of implements, of machines, of fuel. The difficulties were immense. Even before the end of the War, the foundations, as we have seen, of German agriculture were undermined. In the long run every effort would have been in vain. In this sphere, too, the war of starvation had exercised its disastrous effects.

MISCELLANEOUS INFORMATION RELATING TO THE CONDITIONS OF THE AGRICULTURAL CLASSES.

INTERNATIONAL QUESTIONS

AN INTERNATIONAL CONFERENCE AND EXHIBITION RELATING TO SOCIAL QUESTIONS — Communicated by the Argentine "Museo Social"

The Argentine "Museo Social", founded in May 1911, includes among its members the most eminent men in the Argentine Republic and has affiliated to it nearly all the most important institutions representing the intellectual life of the country, including the Universities. Without religious or political bias of any kind, the Argentine "Museo Social" works towards a better social and economic organization of the country, employing for that end all possible means of propaganda. It was under its auspices that Theodore Roosevelt and other foreigners of note visited South America. Its reputation is firmly established throughout the world.

At the present time, the "Museo Social" has taken the initiative for the holding of an International Conference on Social Questions in the capital of the Argentine Republic in September 1924, accompanied by an International Exhibition.

The Argentine "Museo Social" desires to bring together at Buenos Ayres delegates from the chief official and private institutions working in the different countries of the world for the improvement of social organization: social institutes, organizations for social reform, welfare, health or education, whether national or international in character, and in which workers, employers, or both, are directly interested. Party spirit or controversy of all kinds must be kept out of the discussions, as well as all kinds of national or industrial propaganda. Its aim will be to unite the various efforts that have been made to improve the social organization of all nations.

The Exhibition will give documentary and graphic expression to the progress made by each nation, and the work effected by each organization.

FRANCE.

STATISTICS OF THE RURAL EXODUS — *Bulletin de la Statistique générale de la France*, Paris, October, 1922.

The statistical results of the census of 1921 supply numerical data of some interest on the extent of the rural exodus.

From the middle of last century, the communes were divided at each census into urban communes having more than 2,000 inhabitants concentrated at the chief town, and rural communes having at most 2,000 inhabitants concentrated at the chief town. This distinction is an arbitrary one, and does not always exactly fulfil the intentions with which it was made, but it at least serves to furnish results which are capable of being compared over a long period.

The figures referring to the year 1851 do not include Savoy, Haute-Savoie and the Maritime Alps, annexed in 1860. Those of 1921 do not

include the three departments of Alsace and Lorraine, for which the last census return shows a rural population of 56.7 per cent. for the Moselle, of 50.8 per cent. for Bas-Rhin, of 46.8 per cent. for Haut-Rhin.

Year	Population is shown by census in thousands			Percentage	
	Urban	Rural	Total	Urban	Rural
1851 (84 departments)	9,135	20,648	35,783	25.5	74.5
1872 (87 departments)	11,235	24,808	36,103	31.1	68.9
1891	14,311	24,032	38,343	37.4	62.6
1911	17,509	22,093	39,602	44.2	55.8
1921	17,380	20,121	37,500	46.3	53.7

In the 87 departments, 58 communes, having altogether 172,000 inhabitants, which were classed as rural communes in 1911, have been classed as urban in 1921. On the other hand 146 communes, having altogether 354,000 inhabitants, which were classed as urban in 1911, have been classed as rural in 1921; these are to be found chiefly in the war-zone, where the difficulties of reconstruction have made it far from easy for the inhabitants to return.

Although the total figures relating to the whole country do not leave any doubt as to the fact that the rural exodus is still continuing, it is however important to refrain from statements of too general a kind. Out of the 87 departments, as a matter of fact, there are 31 for which no depopulation of the country districts is reported. In two of these, Ariège and Corrèze, the mean average rural population remains exactly the same in 1921 as in 1911 (82.2 per cent. and 83.8 per cent.); in the remaining 29 there is a more or less perceptible increase in the rural population, which may sometimes be the result of the ordinary excess of births over deaths, but also in many cases means that there is a real return to the land going on. The following table shows the figures relating to the rural population in these 29 departments in percentage of the total population.

	1921	1911		1921	1911
Ain	80.4	79.4	Lot	86.2	85.6
Aisne	70.3	67.1	Lot-et-Garonne . . .	76.0	74.9
Allier	70.5	70.9	Maine-et-Loire . . .	70.6	70.1
Alpes (Basses-) . . .	84.0	80.2	Marne	76.4	75.9
Alpes (Hautes-) . . .	83.3	76.6	Marne	55.0	49.4
Ardenne	63.3	63.0	Meurthe-et-Moselle . .	43.2	40.5
Creuse	87.0	87.7	Meuse	74.7	73.7
Eure	77.2	75.9	Nord	29.0	28.5
Eure-et-Loir	78.3	77.0	Orne	78.8	76.8
Finistère	73.5	72.1	Var	38.5	37.4
Gers	87.2	84.4	Vaucluse	46.9	45.0
Landes	90.2	88.9	Vendée	85.3	84.1
Loir-et-Cher	79.3	79.1	Vienne	77.3	76.0
Loire (Haute-)	80.6	80.4	Vienne (Haute-) . . .	65.7	64.8
Loiret	65.4	64.9			

M. B.

LAND SYSTEMS

MISCELLANEOUS INFORMATION RELATING
TO LAND SYSTEMS.

CZECHOSLOVAKIA.

THE EXTENSION OF SMALL TENANCIES — *Mitteilungen des Verbandes der deutschen Gross- und kleinen Böhmern in Prag*, No 9 Prague, 28 September 1922.

By the Law of 13 July 1922 the provisions of the Law of 12 August 1921 relating to the extension of tenancy agreements for certain classes of small holdings were completed and partially modified. Provided the rules laid down in the laws are observed, the right to extension is conceded to small holders up to 1924, even against the wishes of the land owners.

In order to procure extension the consent of the State Land Office (*Staatsbodenamt*) is not necessary, nor that of any other authority.

The right to the renewal of the tenancy lies only with those small holders who do not possess more than eight hectares of land whether owned or rented and who cultivate the rented land either personally or with the assistance of their families. The right is not granted to a tenant who makes a bad use of the land he rents or who cultivates in such a way as to endanger the fertility of the soil. The tenants of larger farms who sublet part of the land in small parcels have the right to an extension for those lands on which the subtenants can make good their own claim to extension on the basis of the legislation. If the agreement of the tenant of a large farm is due to run out before 1924 without power to renew, the sub-tenants nevertheless retain the right to the extension of their tenancy up to 1924, whether the tenant of the large farm, with whom the sub-tenancy agreement was originally made, continues to appear in the agreement as the landlord, or whether he is replaced by another person or even by the landowner himself. The claim to extension cannot be made against landowners owning farm land of less than 15 hectares in extent.

The amount of the rent may be fixed each year, up to 1924, between the tenant and landlord, on the lines of fixing as the maximum rent per hectare, the value, calculated on the basis of the average prices published by the Ministry of Agriculture, on the Prague market in the months of August, September and October of the year in question, of 150 kilogrammes of rye in the zones of forage crops; of 180 kilogrammes of rye in the zones under potato crops; of 200 kilogrammes of rye in the zones of the second class under cereal cultivation, and of 300 kilogrammes of rye in the zones under beet-root cultivation.

The landlord has no right to require payment of the rent in kind, but only in money. If no arrangement is arrived at among the parties as to the amount of the rent, the district court within whose jurisdiction the land is situated gives a ruling. The court fixes in the manner described the maximum rent, and in consideration of the special conditions of the yield of the land in question, may sanction an increase or decrease of 20 per cent. on the maximum rent. M. T.

HUNGARY

LAND REFORM — *Economic Review*, Vol. VI, No. 19, London, December 8, 1922.

Since Count Károlyi's Government decided upon the partition of all large landed estates, the question of land reform has been prominent in Hungary. The Act passed by the Minister of Agriculture, however, never came into operation. The Bolsheviks tried to nationalize the property of farmers, but encountered the most vigorous opposition. It was the Government of Count Tieleki which first was able to make grants of land to returned soldiers. Before the Land Reform Act was brought before Parliament the Regent promulgated an ordinance which assigned to those who had distinguished themselves in the war, were of unblemished reputation and were at all times ready to offer their services for the maintenance of order and civil peace, landed property known as "hero estates". The land to which this ordinance applied was handed over for the purpose by individual landlords, communities and associations. Alienation of a "hero estate" is forbidden, and the property is settled in tail male on the eldest son. Should the grantee or his successors prove hereafter to be unworthy, the land escheats to the State. The holders of "hero estates" and their successors are entitled to bear the prefix *Vitéz* (hero). Already some hundred "hero estates" had been granted by the bestowal of knighthood.

The Land Reform Act purposes to extend this ideal tenure and to enable those to acquire land who have the means and will to cultivate it, but who, so far, have been prevented by circumstances from acquiring it. First will be considered applications for land from those engaged in agriculture who have won the medal for bravery in the War; and then the application of disabled soldiers, war widows, and war orphans. The requisite land will be acquired by the State outright from the present owners or by right of pre-emption, and, if necessary, by expropriation, land purchased during the War being the first to be expropriated. A decree for the acquisition of "homestead holdings" and small holdings has been promulgated with the object of immediately supplying the most pressing needs of the rural population. The granting of "homestead holdings" reduces the shortage of rural dwellings. For this purpose the following classes of property will be requisitioned: land alienated during the War; the landed property of undertakings in liquidation; the property of persons convicted of treason or desertion; estates exchanged by their

owners during the past thirty years. The decree for small holdings assures to the rural population the further enjoyment of land already rented by them. The execution of land reform is assigned to the Land Regulation Court, which is responsible only to Parliament.

The Land Regulation Court commenced its work in June 1921, since which date it has received 35,643 applications for land grants. In 723 communities (*Gemeinden*) 6,249 persons were provided with small holdings to the extent of 6,980 land survey "yokes". The delivery of land was demanded from 881 Communities, and to 2,135 of these judges were sent to supervise it. Expropriation has been applied in 80 communities to the extent of 30,867 "yokes", out of which were formed 35 common holdings, 11 "dwarf" and small properties (in Upper Hungary, exclusive of Croatia and Slavonia, there were 2,364, 938 "dwarf" and small properties amounting in extent to 11,100,000, "yokes"), 927 "homestead holdings", and 1 "hero estate". The right of pre-emption was exercised in 53 cases over 9,666 "yokes". Properties, 191 in number, and 42,918 "yokes" in aggregate extent, were parcelled out, whereby 5,459 persons became possessed of land. The Land Reform Act has, therefore, up to the present date, created 21,176 "homestead holdings" and apportioned 9,043 "yokes" for the formation of "dwarf" and small properties. The work of the Court is fostered by a new Act, which provides that owners of estates of over 1,000 land survey "yokes" must pay their levy on capital in the form of land. The apportionment is completed. Distribution can now begin.

J. K. M.

LATVIA

AGRARIAN REFORM. — Article in the *Revsler Dole*, Rerval, 23 September, 1922, reproduced (in English) in the *Economic Review*, Vol. VI, No. 10, London October 6, 1922.

On the occasion of the second anniversary of the voting of the Agrarian Law by the Latvian Constituent Assembly, the Assistant Minister for Agriculture, M. Lindin, gave an account of the activities of the Land Committee which sits under his Presidency, and is charged with the execution of the reforms specified in the Land Law. This Committee has already taken over all the lands ordered to be handed over to the State with their appurtenances, and has redistributed the greater part. The "industrial enterprises" requisitioned under the Act, including mills, orchards, have already passed into the hands of their new owners, who have had to pay a small security in case it should be decided that compensation is due to the former owners, with the proviso that should the opposite decision be made, the security should be repaid to the new owners. Rent has in no case been paid this year for the use of these "industrial enterprises". For the confiscated properties which have been taken into the "Land Fund" and are not yet definitely divided up, security has been paid by the new occupiers, amounting originally to one-third, but since reduced to one-sixth of the rent for the previous year. In this case, also, it is hoped that the compensations to be paid the previous owners will eventually not

have to be paid at all ; at most, they will not exceed one-sixth of the previous State yearly fixed rent. The greater number of leased allotments have also passed into definite possession of the new owners, some allotments being divided between more than one property. But, in most cases, the definite parcelling out has not yet been accomplished. Likewise, the land appertaining to the " industrial enterprises " has not yet been measured out, so that the new owners have only entered into " moral " possession ; the actual parcelling out will ensue later.

Of the 120,000 small holdings applied for, about half will be assigned by St. George's Day (April 23) 1923. In some few districts the parcelling has already been effected, but in many this work is at a standstill, particularly in Lettgallen, which has a different land tenure system from the rest of Latvia, and here, also, land is more scarce, so that not only waste land and forest land must be assigned for cultivation, but actually colonies must be sent to other parts of the country. It has been already resolved to transplant 3,000 inhabitants elsewhere.

Hard work was being done on the land, building was proceeding busily and only a small and decreasing number of new owners were unprovided with the implements they required.

J. K. M.

RUSSIA

LAND POLICY. — *Commerce Reports*, No. 41. Washington, D. C. (United States), October 9, 1922.

We reproduce from *Commerce Reports* the following summary of an article prepared for the United States Bureau of Foreign and Domestic Commerce by an expert on Russian agriculture :

Approximately 85 per cent. of the population of Russia are classed as rural, and the problem of adjusting the theories of the Russian revolution to meet the interests of this great class has been a source of much concern to the Soviet authorities.

Before the revolution the lands of Russia were held partly by the Imperial family and the Government, partly by other large landed proprietors, and partly by the peasants themselves, either as individuals, or as collective peasant societies or village communities. The land of such a community could be neither bought nor sold in individual parcels and was redivided among the members from time to time, but each member tilled his own fields so long as he held them.

The land policy of the Soviet Government since the revolution is a story of perpetual attempts to bring about some harmony between the divergent interests and inclinations of the industrial and agricultural classes.

The first step in Soviet land policy after the October revolution of 1917 was a declaration in favour of the " socialization " of the land. The basic principle of the Law of February 1918 was the abolition of all private

ownership of the soil ; all land was to be given into the holding of individuals, who were actually to work it personally, so long as they continued tilling it. The distribution was to be made on the principle of "equalized land tenure". The individual holder became virtually an employee of the State ; the produce, after a deduction of enough to meet his current requirements, became the property of the State.

The great mass of the peasants failed entirely to grasp the fact that this law confiscated their land as well as that of the Imperial family and other privileged classes. The thing which they did see, and gladly proceeded to act upon, was that the large estates were declared confiscated and were to be turned over to the local authorities "to be distributed among the working people".

But there were others who wanted land besides the local peasants, veterans of the war, industrial workers thrown out of employment, etc., drifted from the city to the country to claim a share. They were far from welcome, yet their rights under the law were just as clear as those of the peasants. Evidences of serious conflict very early appeared and were probably the main cause of the complete restatement of the land policy in February 1919.

The Law of 1919 declared definitely in favour of "large soviet estates, rural communes, group agriculture, and all other forms of collective use of land", and stated that "all forms of individual use of the land should be regarded as merely temporary and doomed to disappearance".

The law did not prohibit individual farming, but by a special gradation of privileges in regard to choice of lands, rights to State assistance in the form of machinery, other equipment and credits, the employment of hired labour, etc., it created pressure in favour of the collective forms of cultivation. Individual farms were relatively so meagrely provided for as to render any extension of this form of cultivation impossible — that is, had the legislation been effectively carried out. In the years following the land socialization policy there was a marked decrease in the area under cultivation. Whatever the causes of this decline, the prevailing opinion, even among Bolsheviks, seems to have been that something was radically wrong with the policy, and the Government has been forced by circumstances to take two highly important steps in the reversal of that policy.

The first step, in the spring of 1921, was a virtual abandonment of the principle that the entire produce of the farms belonged to the State. All peasants who paid promptly and fully a fixed tax in kind were given the right to dispose of any surplus in any manner they chose. This was followed by a series of measures cutting down the number of commodities subject to tax in kind from 13 to 4 — cereals, hay, meat and butter — reducing somewhat the total quantity to be taken and more clearly defining the method of assessment and collection.

The second step, taken in the spring of 1922, was a complete revision of the fundamental law of land possession. While it reiterates the basic principle that the land belongs to the State and repeats the prohibition against the purchase, sale, and mortgage of land, it completely abandons

the idea that "all forms of individual use of the land should be regarded as merely temporary and doomed to disappearance". The peasants are given not the technical ownership but the actual possession of the land.

The old village communities are allowed to continue their practice of permanent group possession with repartition from time to time to their members for actual use. At the same time the individual peasant family may break away from these communities and acquire direct possession, perpetual and hereditary. The new law is thus almost identical in principle with Premier Stolypin's laws of 1907 and 1910.

It provides that if, at the time of any general repartition of land in such a peasant community, any individual family wishes to withdraw it may do so, even against the will of the community, and must be given its share of the community land in a single and separate piece, which thereafter is excluded from the community land fund. If one-fifth of the members of the community wish to break away, they may do so without waiting for the periodical redistribution.

The decree of April 22, 1922, now enables any individual member of a peasant commune to have the land in his possession correctly surveyed and delimited and to have his holdings properly registered at court with precise delineations of boundaries and deeds of transfer of property properly executed issued to him.

The leasing of farms is also permitted; although the right is hedged about with many provisions, these are sufficiently broad to permit virtually complete freedom of action. The decree further permits employment of hired labour whenever the household is unable to cope with its work under the existing man power and physical condition of labour available in the household — and that provision is as broad as anyone may care to make it. In addition, in those regions where there is much land and small population, more permanent employment of hired labour is permitted to the extent to which it may be required by the best agricultural practice. Should the family emigrate, it can still retain its hold on the estate and can either lease the land or work it by means of hired labour, through the expedient of leaving some member of the family on the ground.

In short, the law is a distinct recognition of the individualistic tendencies of the mass of the peasants, coupled with a continued attempt to guard against any return to economic inequality in land possession. The new system of land taxation, which is markedly graduated in character, helps toward the same end of maintaining a social equilibrium. J. K. M.

INTERNATIONAL INSTITUTE OF AGRICULTURE
BUREAU OF ECONOMIC AND SOCIAL INTELLIGENCE

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THE INTERNATIONAL INSTITUTE OF AGRICULTURE

ORIGIN OF THE INSTITUTE AND SUMMARY OF THE INTERNATIONAL TREATY.

The International Institute of Agriculture was established under the International Treaty of 7 June 1905, which was ratified by forty governments. Twenty-two other governments have since adhered to the Institute.

It is a Government institution in which each country is represented by delegates. The Institute is composed of a General Assembly and a Permanent Committee.

The Institute, always confining its attention to the international aspect of the various questions concerned, shall :

(a) collect, study and publish as promptly as possible, statistical, technical, or economic information concerning farming, vegetable and animal products, trade in agricultural produce, and the prices prevailing in the various markets ;

(b) communicate the above information as soon as possible to those interested ;

(c) indicate the wages paid for farm work ;

(d) record new diseases of plants which may appear in any part of the world, showing the regions infected, the progress of the diseases, and if possible, any effective remedies ;

(e) study questions concerning agricultural co-operation, insurance and credit from every point of view ; collect and publish information which might prove of value in the various countries for the organization of agricultural co-operation, insurance and credit ;

(f) submit for the approval of the various governments, if necessary, measures for the protection of the common interests of farmers and for the improvement of their condition, utilizing for this purpose all available sources of information, such as resolutions passed by international or other agricultural congresses and societies, or by scientific and learned bodies, etc.

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EXPLANATORY NOTE

1. *The present Table of Contents refers to the numbers of the International Review of Agricultural Economics published from January to December 1922 and includes, therefore, all the articles and notes dealing with co-operation, association, insurance and thrift, credit and agricultural economy in general contained in these volumes.*

2. *The articles and notes relating to each part have been grouped into classes of which a list will be found preceding the Index. The classification embraces all the subjects which are included in the programme of the Review. It will be evident, therefore, that certain classes of subject which are only occasionally dealt with may not be represented in the Index of any particular year. In our classification we have followed the rule of single entry and placed under only one heading those articles and notes which, from the nature of the subject treated, might appear in more than one group.*

As it is not in every case clear why an article or note has been assigned to one group rather than to another, the reader must be prepared to refer to the several analogous groups in any of which a particular article or note might appear. A dairymen's co-operative society, for example, might have as its object the protection of the general economic interest of dairy farmers as a class, or simply the improvement of the methods of production, transport, and sale, or again the purchase and collective use of animals of the special dairy type. An article relating to such a society might appear under various headings according as it dealt more particularly with one or other of these objects.

3. *In each group the articles and notes have been subdivided by countries following the alphabetical order. For each country the articles are arranged in the chronological order in which they were published. We have added a table giving the classification by countries.*

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